THE FEDERAL RESERVE SYSTEM AND THE CONTROL OF CREDIT

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The Federal Reserve System and the Control of Credit

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PREFACE

This discussion of the Federal Reserve System and the control of credit deals with fundamentals. These are of interest to most business men who concern themselves at all with the questions of credit control. Present-day discussions of the subject reveal remarkable confusions of thought and opinions, and many of these appear to be due to a lack of comprehension of the fundamentals involved. Until there is a general understanding of these and a preponderance of agreement regarding them, much of the current discussion remains either futile or irrelevant. Once there is a general comprehension of and agreement with respect to the fundamentals underlying questions of credit control, then it becomes more profitable to examine in greater detail the various subsidiary questions and implications involved.

Special efforts have been made to present the various considerations regarding the fundamentals in terms that will afford no difficulties for the general reader. As it sometimes happens, one may present fundamentals in simple terms that are understood easily by the general reader, and yet these may involve far-reaching implications which may be apparent only to the experienced and technically trained reader. It is believed that this is a characteristic of the fundamentals presented here.

On the assumption that the general reader prefers not to be encumbered with voluminous footnotes and bibliographical citations, these have been omitted in most instances and reduced to a minimum in others. It is assumed, also, that the reader with a wide knowledge of the bibliography on money and banking will recognize the nature of the authority which is available to support the writer's conclusions, and will be able to appraise these in the light of his knowledge of the existing sources.

Although there has been an interval of ten months between the time this manuscript was submitted in the Eighth Alvan T. Simonds Economic Contest and the date on which it goes to the publisher, practically no revision has been necessary in order to bring the material up to date. This is due largely to the fact that the essay deals with fundamental principles, as well as to the fact that no new problems have presented themselves that have not been met before by the Federal reserve authorities. With the exception of the addition of a footnote on page 59, an insertion of one parenthetical expression on page 106, an infrequent correction of a word or paragraph, and a very few changes in the tenses of the verbs, the published essay is identical with that awarded the prize.

W. E. S.

Bellerose, L. I.
October, 1930.

INTRODUCTION

Since the World War, the American people have known the discouraging effects of two severe depressions—the first in 1920-1921 and the second in 1929-1930. The severity of each of these might have been greatly mitigated—in fact, I am almost convinced that each of these depressions might have been simply a slight falling off in business instead of real hard times, deprivation and suffering to multitudes of wage earners and their families with paralyzing losses to business concerns and their stockholders, if as a people and as managers of business, individual and corporate, we had been well versed in economics.

Both these severe depressions were due to economic ignorance. Probably the outstanding fallacy in each case was the belief that "spending money in any old way" improved and increased business, making more jobs and greater earnings for all concerned. A second fallacy had much to do with the depression of 1920-1921. I refer to the common acceptance of dollar wages as real wages. In 1919-1920 the rank and file of the people spent heedlessly and unwisely, stimulated by their increased wages in dollars. For some time the dollar had been decreasing rapidly in purchasing power as prices in dollars soared. The fall months of 1919 and the first half of 1920 were months of orgy in spending.

The inevitable consequence followed—severe business depression and hard times, the worst known in a generation.

The seeds of the depression of 1929-1930 were sown by those who so sedulously and plausibly preached the doctrine of spending. This doctrine was given great publicity in the pages of the leading magazines of the country, in books and in addresses at the meetings of political and economic societies and of trade associations. The sponsors of these doctrines and of these publications probably never intended that so large a proportion of the American people would be taught to believe that it was wiser to spend than it was to save, that spending freely kept money moving and meant good business. This idea was very soon applied to credit. The great majority of people seem to believe that there is no limit to the amount of credit that may be sold or extended. Most of them have heard the story of the great financier who said he was willing to advance a million dollars credit to a young man who had no security except his character. If that be true and every one of equally staunch, sound character can get similar credit, then, of course, it is difficult to believe that the amount of credit at any given time can be limited.

If in 1919-1920 we find the use of money abused, in 1929-1930 we find the use of credit abused. If in the first severe depression the ordinary wage earner was largely to blame, then in the second severe depression the business leaders were chiefly to blame, for the wage earner had very well withstood high-pressure salesmanship and continued to increase his savings

until leading bankers and outstanding business leaders in every line began to spread the knowledge of the "New Era," in which industry would have no setback and every great and fundamentally sound corporation would continue indefinitely to increase its business and its dividends, with the stock of the corporation, of course, correspondingly soaring in price.

This is not the place to go further into the details of the causes of these great depressions. President Hoover, before he became President and after, urged the American people to make the road of business more nearly level and pointed out that in order to do this, they must take off the peak on which they stood to fill in the valley ahead of them. The United States has passed through several severe setbacks in its development due to the ignorance and the foolishness of its citizens in regard to money. In the present depression (1929-1930) it is suffering a similar setback due to the ignorance or temporary blindness of the bankers and business leaders, particularly in regard to credit.

We speak and think of the "practical" business man as the best business man; yet in these days of scientific research we know that nothing practical can be the best unless it has been proved by study and research to be the best that we are able to discover up to date. Too many practical business men are guided only by their own experience or by hunch. Back of the best practice is always the best theory which has come as a result of study and of research and has later been applied to practice. Henry Ford's great success is not based upon and does not rise out of his skill as a practical mechanic.

It comes from the soundness of his theories applied to business in the United States in the automobile field. If there is any one fundamental truth that should be known to every business man and in fact to every one, it is that practically all the ways of doing things that have been handed down by tradition and as a result of simple trial and error, are not the best ways of doing them, and that the best ways can be discovered only by constant study and research. This applies to as simple a thing as making electric lamps and to as complicated a matter as the management of the United States Steel Corporation or the General Motors Company or any other great corporation.

For many years I have been forced to recognize the fact that too many business leaders in the United States exalt the practical man and deride the theorist and his theories. Too many managers and other executives in business are satisfied that there is no use in theory so far as their business is concerned. Therefore they reject theory and proceed as practical men. Many of them perhaps would like to reject law as well as theory. They have always shown irritation when law-making bodies are mentioned and, in hiring and firing in industrial strikes, and shut-outs, they have at times seemed to wish that there were no laws, or at any rate that the laws were less definite and restraining upon them and their actions. They, however, have recognized the law and its practitioners and in many cases have retained permanently the greatest legal minds to help them solve the legal problems connected with business. As to economics and economic law, it is a

different story. Nearly a billion dollars have been given for endowments by business men, but very little of it for economic research.

These same practical business men have been blind when it comes to the inexorableness of economic law. They have suffered accordingly and yet the great majority of them have been content to remain ignorant of fundamental economics and its laws which determine the success or failure of their business ventures. In the last decade, however, there has been a great awakening on the part of some as to the need of a theoretical and economic education of business leaders. Excellent schools of business administration have been established in connection with our great universities. In time the continued flow of graduates from these schools into business positions is going to bring about an entirely different condition, but this is going to take a much longer time than most of us realize.

About ten years ago I made an effort to do something in a small way to help increase the general economic intelligence of our citizens and particularly of our business men. I have had this idea in mind ever since graduating from college. Just after the war I attempted to do something, first through an open forum for the citizens of Fitchburg, Mass., and shortly after by offering annually two prizes of $1,000 and $500 for the best essays on an economic subject. In 1922 I began the publication every two months of a pamphlet, *Looking Ahead,* forecasting business conditions.

In November, 1928, I realized the precarious situation in credit, and from then on followed with great interest the decisions and acts of the Federal Reserve Board. *Looking Ahead* had from May, 1928, pointed out the fact that if money rates continued to rise, there would come a turn-down into depression in the first half of 1929. I became so interested in the credit situation that I announced in 1929 for the economic prize contest of that year the following subject: "The Federal Reserve System and the Control of Credit." The first prize of $1,000 was won by Walter Earl Spahr, Ph.D., Professor of Economics, New York University, who submitted this book as his contribution to the contest.

The Federal Reserve System is not yet perfect, although it has doubtless already rendered a great service to the people of the United States. The reading and study of this volume will, I am sure, make the workings of the system much clearer to all. It points out the limitations within which the system must work and compares its relatively short length of service with that of similar systems in foreign countries.

ALVAN T. SIMONDS.

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THE FEDERAL RESERVE SYSTEM AND THE CONTROL OF CREDIT

CHAPTER I

FUNDAMENTAL CONSIDERATIONS IN CREDIT CONTROL

Increased interest in questions of credit control

The question of credit control has become one of paramount interest and importance not only to the banker and economist, but to an increasing proportion of the general public. It is doubtless true that never before have so many people been interested in the various considerations bearing upon the principles of credit control. Due to the widespread interest in them, these considerations have been removed from the realm of the academic to the realm of the immediately practical. The phenomenally large group of investors wish to understand the principles of credit control, because they have learned that there is a very close connection between the general credit situation and their welfare as investors. The persistence of the public in attempting to discover what, if any, principles exist and are applied, has given rise to a multitude of explanations which have been conflicting and confusing in nature.

A confusion of opinion regarding credit control

The causes for this confusion of opinion with respect to credit control are due, it seems, to at least four very fundamental factors. One of these is the fact that there

is a lack of unanimity of opinion as to the function of central banking systems in controlling credit. Out of this fundamental but complex question arise other related questions which demand an examination before a well-formulated opinion may be advanced as to the proper function of a central banking system in credit control.

A second aspect of the confusion appears in the diverse views advanced relative to the mechanism which is available and which is or may be used to control credit. A third source of confusion exists in regard to the policies which central banking systems have developed in the use of their respective mechanisms designed for controlling credit. The fourth element of confusion is observed in the various criticisms and solutions that are advanced by those who profess to believe that present methods are not all they should be. These four considerations will be examined in the order mentioned.

The functions of central banks with respect to credit control

It is futile to attempt an answer to this question until certain fundamental and elemental considerations which are involved are brought to light and examined. The question of credit control implies a clarity as to purpose. Assuming that credit can be controlled it is, of course, quite logical to ask just why credit should be controlled and if so by whom.

It does not require a particularly keen mind to observe that there is considerable misunderstanding as

to why there should or should not be such a thing as credit control, and also that there is some disagreement among writers on the subject as to just what the proper criterion should be for credit control.

Is price level stabilization desirable?

Perhaps the simplest and most generally accepted belief regarding the criterion is that any money and banking system to function ideally should bring about a stable price level, or, in other words, stability in the purchasing power of money and credit. This doctrine is an old one and is taught rather consistently in our colleges and universities. It is the one that permeates practically all our treatises on economics, money, and banking. The maintenance of a stable price level, in general, has been and is the fundamental criterion by which the goodness or badness of a money and banking system may be judged. It is considered an elementary truth that a currency system should be so stable that all deferred payments and all credit transactions should be completed in the exact amount of actual purchasing power for which the contract called. A good standard in exchange is one that has as one of its characteristics the capacity to serve as a stable medium in liquidating deferred payments. Unless such a standard exists the relationships between debtors and creditors are disrupted, contracts are not fulfilled properly, economic relationships are distorted, maladjustments in production, exchange, and consumption appear, grave social injustices become evident, social friction increases, and the entire economic, if not social, fabric becomes in-

volved in a very unhappy disorder. The consequences flowing from changes in the price level have been considered as belonging to the realm of the fairly obvious. As a result much attention has been given to devising methods of mitigating the evils of fluctuating price levels and of preventing the fluctuations.

Outstanding plans for price level stabilization

The plans proposed for price level stabilization have occupied a large place in monetary discussion and have culminated in a rather well-organized system of knowledge and of doctrines regarding such matters. The history, virtues, and defects of the respective plans, which have been advanced, have been discussed so widely that they are rather generally understood by a steadily increasing group of people.

The chief argument advanced by the bimetallists, until their final defeat, was that two standard metals would bring a greater stability in the price level, than would monometallism or a single metal standard, through the operation of the so-called compensatory principle.

The explosion of this fallacy was followed by considerable discussion of the tabular or multiple standard, brought into prominence in the 1870's by William Stanley Jevons of England, although, of course, the idea dates back at least to Joseph Lowe's *The Present State of England in Regard to Agriculture, Trade, and Finance,* published in 1822. Jevons had done much to educate the public regarding the virtues and practicability of index numbers as a means of measuring

changes in the price level, and recommended the tabular standard as a means of adjusting monetary settlements in accord with changes in the price level, in an effort to secure justice as between debtor and creditor. This plan, of course, could not stabilize the price level; it was merely a means devised to mitigate some of the evils flowing from the fluctuations in the price level. While the plan has been used in some instances, the difficulties involved in its general use became so well recognized that it has ceased to be more than an interesting incident in the history of stabilization plans.

Although there is no such thing as a general chronology in the order in which various plans for price level stabilization have been offered, one will notice that in the United States the years 1896-1913 were characterized, in the fields of money and banking, by a discussion of the desirability of securing an elastic currency system. Elasticity was the keynote of the discussions, and by an elastic currency system was meant one which would result in the stabilization of the price level. As the amount of goods and services to be sold increases, the amount of currency used in exchange should increase in a proportion necessary to cause exchanges to take place at a fixed price level. As the amount of goods and services to be exchanged decreases, the amount of currency in circulation should be adjusted accordingly, and a stable price level should be the result.

This principle secured an overwhelming acceptance and resulted in the creation of the Federal Reserve System, in order to provide the proper mechanism to give us the desired elasticity in our currency system.

Elasticity, it was supposed, was provided through the creation of the Federal reserve notes, an asset currency based partly upon the security of commercial paper, the remainder of the covering (at least 40 per cent) being gold, and through an elastic deposit currency (evidenced by checks, drafts, etc.), the elasticity of the deposit currency being secured through the proper organization of the banking structure. It was the undoubted habit during the years 1914-1920 (approximately) for writers to manifest an overemphasis upon the degree of elasticity secured by our Federal Reserve System, doubtless born of an optimistic hope and a lack of complete understanding as to the actual functioning of the new system. Since the radical fall of prices in 1920 the tone of the writers on the elasticity of the Federal Reserve System has shown a marked change in emphasis. It has been the fashion to point out that the elasticity is not all that was expected and, as a result, various criticisms and supplementary plans have come to the front.

In 1920 Professor Irving Fisher published his *Stabilizing the Dollar* (although the plan dates back to 1911) and advanced his plan to stabilize the price level by varying the content of the unit of the gold standard. This plan has received wide attention and acceptance both in this country and abroad. Without doubt many persons believe that a system like our Federal Reserve System should be supplemented by some such mechanism as that suggested by Professor Fisher. At different times his plan has been embodied in bills presented to Congress, for example, in the Goldsborough Bill—but

thus far he has been unsuccessful in securing its adoption. A somewhat similar plan was introduced in Congress in April, 1929, in the Burtness Bill (H. R. 112). It seems to be conceded quite generally that the Federal Reserve System has elasticity in the loose sense of expansibility and contractibility, but that the element of quick responsiveness is lacking and, as a result, elasticity in the proper sense is not all it should be. Supplementary plans and methods of improving the System, therefore, have become the central themes of many of our present-day currency discussions.

It is generally believed that the governments could do much, particularly the Federal government, to aid in price-level stabilization, if they would so plan their disbursements for public improvements that they would fall largely in periods of inactivity and depression. The proper timing of such government expenditures would be something of a mitigating mechanism, it would be a case of throwing the government's weight on the proper side of the scales, although it remains to be demonstrated whether it would reach down to the fundamental cause of the trouble. It appears that there is some prospect of genuine progress being made along this line. The efforts being made at present by President Hoover to combat the trends toward depression are an instance of the application of this principle.

Other suggestions for stabilization need not be mentioned at this time. The chief point to be observed in the summary outline of the plans just mentioned is that all of them have assumed the desirability of sta-

bilizing the general price level. While there has been disagreement as to the best method or methods to be used in securing stabilization, the desirability of stabilization is not questioned by any great number of persons who would be generally considered competent to judge its merits.

The opposition to stabilization

Occasionally a discordant note appears and only recently there has been advanced the unorthodox theory that a stabilization of the price level is undesirable and impracticable. The argument goes something like this: A price level is measured by an index number, which is an average in some form of the prices of the various commodities included in the list from which the average is computed. Now, if it is our purpose to keep the price level stable, a rise in one group of commodities must be offset by a fall in another group. For example, if the price of wheat rises then some other commodity like cotton must fall to keep the price level steady, and the cotton grower secures little satisfaction in the knowledge that the gain to the wheat grower was the cause of his loss.

Upon first consideration such an argument may appear to be valid, but a more careful examination of it reveals its fallacy and the confusion of thought.

An index number of the price level is a relative, based upon an average, type, or aggregate, computed in various ways, of the prices of a selected list of commodities. For example, the index number published by the United States Bureau of Labor Statistics is com-

puted from 550 commodities. Now if the index number this month shows a rise, as compared with the index number of last month, it means that on the average the rise of prices among these various commodities exceeded the fall. The index is the record of what took place. It does not mean that because one or some of the commodities rose in price, one or several, of necessity, were compelled to fall. There is nothing about an index number that compels some commodities to rise while others fall in price. All may fall or may rise in price; an index number is merely a record of what has taken place.

But should an index number show a rise in the price level and then some central authority, like a central banking system, decides to use the existing mechanism to force a fall in the index number, the pressure is exerted all along the line, on all of the 550 commodities and many others—at least theoretically—and not on one or a few to offset those which have risen. If the index number rose 2 per cent and it is desired to force a return to the old level, each commodity would need to fall 2 per cent, or all the commodities 2 per cent on the average, an amount which would not be particularly noticeable in the market. Furthermore, if it be conceded for sake of the argument that the pressure might fall upon one or a few important commodities, like the cotton of our illustration, it should be noticed that it is just as logical to reason that the pressure would fall on the wheat, which had risen before the last index was determined, as it is to reason that it might fall on cotton. But to insist that it must fall upon cotton is

to reveal confusion in thought. It should be noted, also, that there is nothing about a stabilization policy which would prevent the regulative body putting much of the pressure upon the wheat (of our illustration) and reducing it on the cotton. It seems reasonable to believe that pressure may be placed at the points desired under a policy of stabilization just as it is done at present.

Furthermore, the argument advanced that stabilization is undesirable because society will not secure the benefits of decreased costs of production in important lines of business, appears to be a short-sighted point of view and one fundamentally fallacious. The contention appears to rest upon an assumption that progress in our economic order invariably leads to decreased costs of production in most productive activities which, in turn, will bring a general fall in prices and the price level. It would be difficult indeed to demonstrate the existence of any such economic principle underlying our progress. Costs rise as well as fall, and selling prices may fall while the costs involved are rising. Competition under such conditions wipes out businesses faced with these two factors. In an economic system like ours businesses come and go; new methods are substituted for the old with costs that may be lower or higher. The public may prefer the new to the old, despite the higher costs, and the increased income of the masses may justify the purchasing of new commodities produced under conditions of high costs. The cost of automobiles, for example, probably was and is much greater than for carriages and horses, yet car-

riages and horses were displaced and the public benefited by the change.

Those persons, also, who urge that a slowly increasing price level is preferable to a stabilized price level, seem to overlook the fact that this anticipated rise would tend to be discounted in every way possible, with the result that the expected stimulus supposed to come from the steady rise in the price level would be lost. The general results would be much the same as under a stabilized price level, but would lack many of the advantages resulting from stabilization.

The opponents of stabilization also appear to forget or minimize other very important considerations and benefits that are involved in a stabilized purchasing power.

It is desirable from every standpoint that debtor and creditor relationships be stabilized. When it is considered that the great bulk of our business transactions are on a credit basis—a deferred payment basis—it at once becomes clear that a fluctuating medium of exchange affects the true value of most of these contracts.

The present size of national debts is probably equal to, if not greater, than the total value of the transactions involved in any group of industries that may be effecting a reduction in prices through a reduction in costs. If this be true then it naturally follows that it is very desirable that the price level be stabilized to protect the bondholders, taxpayers, and the governments. It seems reasonable to expect that these three groups will comprise a greater number of people than can any

group of industries which may be working toward falling prices.

Opponents of stabilization should consider also the tremendous and increasing size of the public utilities, which either are regulated or are certain to be regulated as to charges and rates of return. A fluctuating purchasing power is dangerous to all businesses subjected to public regulation.

The same danger applies to insurance companies and to the holders of insurance policies. The ramifications of insurance to-day are apparent to all; it does not extend itself merely to a few important industries, but to the great mass of business and humanity.

The positions of saving banks and of their depositors also are endangered or favored, as the case may be, by fluctuations in the price level. Few persons would fail to recognize the importance of savings in our modern economic structure or would dare insist that it is of small importance whether they be placed on a stable basis.

The opponents of stabilization, furthermore, should consider the fact that in these days of corporate issues of securities, the mass of people have become holders of securities, a large proportion of which are in the form of bonds and preferred stock, and that fluctuations in the price level endanger their welfare and the welfare of the corporations issuing the securities. It is just as logical, also, to apply the argument to the holders of common stock.

Another important type of institution which would be endangered is our large foundations established by

philanthropists. The Russel Sage Foundation in 1926 listed 120 important ones.[1] Their creation and operation have become a major industry in the United States. In the last fifteen years, according to Julius Rosenwald, two and one-half billions of dollars were presented to capitalized public welfare in the United States—a sum equal to the entire wealth of the country a century ago.[2] With the rapid increase in millionaires in this country it is reasonable to expect that the number of such foundations in the future will increase. Certainly no thoughtful person could wish to endanger the purchasing power of their income through a fluctuating price level. The same argument applies to all endowed educational and eleemosynary institutions.

As a result of the apparent weaknesses of the arguments of those relatively few persons who insist that it is undesirable to stabilize the price level, they may be dismissed from the picture, which one may safely assume represents the preponderance of responsible opinion regarding the question.

The first essential and fundamental question to be borne in mind, therefore, is the fact that most well-informed persons believe it desirable to stabilize the price level.

The general methods of price level stabilization

The next logical consideration involves the principal methods by which price level control may be accom-

[1] *American Foundations,* Bulletin of the Russel Sage Foundation Library, No. 78 (Aug., 1926).

[2] Julius Rosenwald (as told to Elias Tobenkin), "The Burden of Wealth," *The Saturday Evening Post* (Jan. 5, 1929), p. 12 *ff*.

plished. In a general sense it may be effected only through two avenues: one is through the control of the monetary standard and the other is through the control of credit. In countries like England and the United States, in which credit constitutes probably more than 90 per cent of the media of exchange, it is quite logical to suppose that the chief means available for stabilizing the price level would be found in the control of credit. In other countries in which specie and paper money are relatively more important than deposit currency as media of exchange, it is to be expected that the mechanism of price stabilization must effect most of its control through the regulation of the specie and paper money in circulation, and lay less stress upon credit control. In both types of countries, however, some consideration must be given to both aspects of the question, but it is essential to bear in mind that the point of emphasis is conditioned by the nature of the prevailing currency system.

In European countries it is natural to expect that the fundamental questions of price level stabilization following the World War would center on the reform of the specie and paper money currency, in contrast with deposit currency, since the latter in most cases is of relatively minor importance. It is not to be forgotten, of course, that the problem of bringing an inflated currency back to some parity, new or old, either through devaluation or through deflation, is radically different from that of maintaining its stability once it has been restored to parity. As a result, the considerations of

currency stabilization involved in the so-called restoration of European currencies, following the World War, must not be confused with the considerations having to do with maintaining a stable price level under conditions in which the currencies are considered fairly normal.

In the United States practically all the discussion with respect to price level stabilization has centered—and quite appropriately—in the question of credit control, since the greater proportion of our exchange transactions are liquidated by means of credit operations. The issues regarding our use of specie and of paper money are not particularly live issues, with the possible exception of Professor Fisher's plan to secure even greater stability of price level than can be secured through our present Federal Reserve System. It seems quite proper to consider a plan like Professor Fisher's as supplementary to and a refinement upon the mechanism which now is available for price level control through the control of credit. It is rather generally understood, of course, that some of our paper money, like the United States notes, national bank notes, and Federal reserve bank notes, is inelastic in nature, and in the opinion of many people might be retired advantageously, and Federal reserve notes—our only elastic notes—issued instead.

While it is undoubtedly true that we have several inelastic elements in our paper currency, which could be removed and thus contribute to the elasticity of our media of exchange, it nevertheless remains a fact that

the major proportion of the control of the currency in circulation rests in the control of credit, and it is around the question of credit control that most of the present-day discussion and interest centers.

Credit control implies elasticity; and by elasticity one means the responsiveness of credit to the increase or decrease in goods and services which are exchanged through the medium of credit. Specie and paper money serve as media for exchanging part of the goods and services exchanged. The remainder are exchanged largely through credit, a small proportion being exchanged by barter. Since there is relatively little response on the part of our specie and paper money to changes in the amount of commodities and services offered for sale—the only exception being in the Federal reserve notes—it follows that most of the responsiveness must be found in our deposit currency evidenced by checks and drafts. If credit (deposit currency) responds quickly and accurately then the currency is genuinely elastic and the price level tends to remain stable. If credit is extended too freely, if it exceeds in amount the goods and services offered for it at that price level, then inflation takes place and a rise in prices ensues. If credit is not extended rapidly enough there is a tendency for prices to fall. The problem in credit control is to regulate its supply so that it will keep step accurately with changes in the amount of commodities and services offered for it and thereby stabilize the price level.

Is it the function of central banks to attempt to stabilize the price level through credit control?

The next logical and important point for consideration is whether it is the function of central banking systems to attempt to stabilize the price level through credit control. On this point there is a division of opinion, although it seems quite reasonable to assert that the great majority of the authorities in banking are of the opinion that one of the principal functions of a central banking system is to exercise its influence in behalf of price level stabilization. Indeed, it is the conventional thing to judge the fitness and unfitness of a banking system according to the degree in which it accomplishes this function. But much of this belief rests only upon vague and rather uncertain theories.

Stabilization clauses of organic bank laws

Only in a most general sense do any of the organic laws controlling the central banks or central banking systems state that it is the duty of the central banking authorities to stabilize the price level. It is true that in some of them there is a statement that it is the function of the bank or system to maintain stability of prices, but the clause is a general-purpose clause and does not carry with it the implications that are found in respect to the maintenance of reserve requirements. Ordinarily some penalty is applied for a failure to maintain reserve requirements, but in no case, of which the writer has any knowledge, have any penalties ever been provided, or even suggested, for failure to maintain a stable price

level. Reflection would reveal the futility of attempting to make such a general-purpose clause truly mandatory in nature. A national emergency like a war obviously would make it impossible for any central banking system to maintain a stable price level. Such general-purpose clauses are little more than expressions of hopes and ideals, and certainly cannot be looked upon as part of the organic act or as serving as a rigid central guide in the administration of a banking policy. Neither can these clauses furnish a genuinely legal basis for criticizing or condemning central banking authorities when the price level changes. Such clauses belong in the same category as those expressions like "good banking," or "a safe banking system."

The organic acts of some of the world's strongest central banks omit the general-purpose clauses with respect to stability of price level, and yet the most casual student of the systems would perceive that by implication one of the chief functions of the banks or systems is to endeavor to secure stability. It seems to be a safe conclusion that these stability clauses add nothing of definite value, beyond what is secured through the application of the general principles of sound banking.

Stabilization versus the maintenance of reserves

It is a fact sometimes overlooked that the first and most fundamental duty of any central bank or system is to maintain itself securely. The reserve structure must be protected at all costs or the banking system will collapse. For this reason rigid requirements usually

obtain with respect to maintenance of reserves. In all such cases, it should be observed, the principle of reserve maintenance conflicts with the principle of price level stability. So long as there exists a surplus of reserves the principle of price level stability may have free play; but when reserves have fallen to the lawful limit, or to the danger line, then the question of price level stability gives way to the necessities of maintaining reserves and, consequently, the safety of the banking structure. In such cases it is futile to discuss the ideal of maintaining price level stability. There is no banking system in the world that does not look to its reserves first and consider the price level afterwards. The two principles, within certain limits, are mutually exclusive and inconsistent. This fact should deter somewhat those idealists who insist that the price level may and should be maintained at all times.

If these observations be true then it naturally follows that it is impossible for central banking authorities to conform at all times to the requirements of the organic act which prescribes minimum reserve requirements, and at the same time states that it is their function to maintain a stable price level. The two types of provisions or requirements are fundamentally inconsistent, and it is for this reason, not to mention others at this point, that stability clauses have little real value.

Specific provisions for stabilizaton in foreign systems

The charter of the Bank of Finland, for example, states that "The object of the Bank is to maintain stability

and security in the monetary system of Finland." It certainly is true that in times of national stress both these objects could not be accomplished. The function of the Bank of Lithuania, among other things, is ". . . to realise a stable and strong currency system. . . ." The purpose of the Bank of Poland is ". . . to maintain the stability of the currency, to regulate the money circulation and credit." England, France, and Germany have no such general-purpose clauses.

The Federal Reserve Act and stabilization

The Federal Reserve Act, in its Title, states among other things, that it is the purpose of the Act ". . . to furnish an elastic currency, . . ." which, of course, implies a stable price level. In the articles which follow the enacting clause it is expressly stated that it is the purpose of the System to "accommodate commerce and business." There is nothing specific in the body of the Act, which would indicate that it is the duty of the Federal Reserve Board and banks to stabilize the price level. And it should be understood that when the provisions of the body of an act are clear and specific, the general provisions in a title do not command. Dean Chester Lloyd Jones, in his *Statute Law Making,*[3] has stated the principle clearly. He says, ". . . the title . . . is not a part of the bill in the same way that the substantive clauses, the body of the bill, are parts of the bill. It does not command. Nor is it a part of the bill equal to the formal clauses creating the new law. . . . [It] is only an index of

[3] (The Boston Book Company, Boston, 1912), pp. 64, 66.

the contents of the bill; it does not create. . . ." In the national government its authority extends only to appropriation bills. In others it may cover less or more than the body of the bill, or have no reference to the subject-matter. It appears, therefore, that those persons who have insisted upon pointing to the Title of the Federal Reserve Act as authority for maintaining that it is the legal duty of the Board and Federal reserve banks to stabilize the price level, are resting their argument upon what seems to be a weak legal basis.

Furthermore, it should be understood, at this point, that the Federal Reserve Board has never taken the position that the Act specifically directs it and the Federal reserve banks to stabilize the price level. The Board has clung persistently to the wording of the Act and has insisted that the System was designed to accommodate commerce and business. Just what this implies with respect to the stability of the price level is a matter of opinion, although it probably is true that most bankers and economists would hold that the best way to accommodate commerce and business is to stabilize the price level, recognizing, of course, the priority of the issue of reserve maintenance. The Board also has pointed out clearly, particularly in its *Annual Report for 1923,* that it is not possible for it to stabilize the price level to the extent hoped for by many persons, due to the great multitude of factors involved, that either are beyond the control of the Board and banks entirely or are perceived only after they have gathered too much momentum to be checked readily. It is impor-

tant that the Board's position on this question be kept in mind while analyzing the more detailed and technical questions involved in credit control.

A contention which is fairly typical of that of many responsible persons, and probably of the Board itself, was expressed by the Banking and Currency Committee of the Chamber of Commerce of the United States in 1928. It insisted that *"It has not been proved that the way to stabilize industry is to stabilize prices.* On the other hand, it seems to us that perhaps more stable prices would result from a credit policy which should seek to stabilize, first of all, production and the course of business. In this we may be justified, perhaps, in drawing an analogy between social and personal welfare. Philosophers usually teach that happiness is not a commodity which can be acquired by direct search. It must be a by-product of service and activity. In the same way, it is not clear that price stability should be the immediate goal of credit policy." [4]

Should central banks attempt to stabilize the price level through credit control?

Bearing in mind that the organic acts of the various central banks and systems do not stipulate in a rigid manner that the central banking authorities must stabilize the price level, the question remains, nevertheless, as to whether they should attempt to do it. That it is the opinion of most of the leading authorities of the world that they should make the effort, seems

[4] *Guides to Reserve Credit Policy,* Auxiliary Report Number IV, Tentative Draft (Banking and Currency Committee, Chamber of Commerce of the United States, Wash., D. C., 1928), p. 15.

beyond question. There are differences of opinion as to how far stabilization may be carried, but there are relatively few important differences of opinion on the point that it should be carried as far as possible. How far this is, probably no one knows, since no country has ever been able to maintain a fixed price level. One limit stands out, however, and that is the limit established by legal or conventional minimum reserve requirements.

Many of the discussions of price level stabilization and of credit control seem to forget this limitation upon a price stabilization policy, and it may be well to amplify the point in order to reveal more effectively some of the fallacies involved in many of our modern discussions.

Three principles in credit control

There are three possible principles involved in credit control. One is to regulate credit in such a manner that the price level remains as stable as it is humanly possible to accomplish. This involves the absolute ignoring of reserves. For example, if surplus reserves are accumulating, due to a favorable balance of payments and an influx of gold, the accumulating reserve must not be permitted to have any weight in the policies of credit control. Surplus reserves, under such conditions, present no serious problems in an effort to control credit and the price level, although they do represent an economic waste. The Federal Reserve System, since the World War, has been confronted with this condition and has found no insuperable difficulties involved. But if the gold reserve is being swept out of the country and

is falling below the limits of safety a dangerous element has entered the situation. Yet, if the sole guiding principle is that of price level stabilization, the banking authorities could take no steps with consistency to impede the outward flow of gold if such steps were likely to invite a fall in the price level. Conceivably the banking structure would collapse under such conditions. There is no country or banking system in the world that is willing to follow such a principle. And yet this is the principle really implied in the arguments of the extreme and absolute stabilizers.

To enable a country to follow such a plan would involve a more radical and a more fundamental revision of the banking and reserve structure than most countries are willing to contemplate. The ideal of stabilization cannot be followed until a way is found to free a country from the control which gold reserves now exercise over a nation's credit policy. Credit policy cannot be free until this is done; and this probably could not be accomplished unless a country is willing to give up its gold standard and adopt some form of a gold exchange standard. And even this probably would not bring stability unless some form of international agreement, involving perhaps the creation of an international settlement mechanism, were entered into along lines similar to those outlined by the Genoa Economic Conference of 1922 and by Mr. J. R. Bellerby in his *Monetary Stability*.[5] Such international coöperation does not exist and, as a result, such a plan of

[5] (Macmillan and Co., Ltd., London, 1925), Chap. VII and Appendices I-II.

stabilization is only of theoretical interest at the present time. It may be pointed out in passing that no plan of price level stabilization, through the control of credit, can be completely successful without some form of international coöperation.

The second principle which may be followed is that of attempting to stabilize the reserve structure. When reserves accumulate, steps are taken to release credit under favorable conditions, in order to bring the ratio of reserves to deposits and notes within the conventional limits. This, of course, tends to raise the price level. Conversely, if reserves fall to the legal or conventional limit, steps are taken to contract credit in order to maintain the reserve structure and the security of the system. But such a procedure tends to force a fall in the price level. Following such a plan obviously causes the price level to fluctuate in the interest of the maintenance of a normal or legal reserve structure. It is diametrically opposed in principle to that of price level stabilization. It was the policy followed in general by the various banks of this country prior to the establishment of our Federal Reserve System, and the manner in which the price level behaved is generally understood. Certainly no progressive country would care to advertise the fact to the world that it follows such a plan to-day.

The third principle is a compromise between the first two. It recognizes that above all things safety must be secured and therefore the minimum reserves must be protected. But when surplus reserves exist, then the policy should be one of price level stabilization. Re-

serves are ignored or impounded. Price level stabilization is an essential part of banking policy, but at present it is secondary to that of insuring safety through the maintenance of the minimum reserves. Thus the system is one of price level stabilization within certain limits. It is undoubtedly the principle followed by most of the leading banking systems of the world, although a few minor countries seem to follow to some extent the second principle.

The major proportion of the modern discussion of price level stabilization and credit control, therefore, is concerned with the third principle—stabilization within the limits of safety. The advocates of the first principle have been unable to secure an adoption of their views, and any further discussion of their proposals becomes irrelevant in an examination of the existing mechanism, which may be used in behalf of price level stabilization. The criterion of absolute stabilization must be discarded for the present, since it belongs only to the realm of the academic. No country with modern currency and banking systems, organized as they are, will risk the possibilities of losing its reserves, and this general acceptance of such an all-pervading belief limits automatically the field in which the current problems of stabilization may be considered. It is to be borne in mind, therefore, that the following discussion of stabilization and of credit control is circumscribed by these limitations. The present problems are concerned with *better stabilization and better machinery for stabilization* within the limits of a safe reserve structure.

While it may be said with safety that the great majority of authorities would insist that it is the function of central banks and central banking systems to stabilize the price level as much as possible, it must not be forgotten that this opinion in many, if not most, cases cannot be said to be official opinion expressed by the administrative bodies of central banking systems, or opinions that can find complete support in the organic acts creating the central banking systems. On the contrary, the opinions, in a large degree, are unofficial and are based upon logic and upon the generally accepted fundamentals of good banking. Those who endeavor to support their arguments for price level stabilization must recognize the grounds on which it may be done. Only through the broadest and most general interpretations and implications will they find support in the chief organic acts.

The Federal Reserve Act, even if one includes the elastic currency clause of the Title, gives no specific support to the principle of price level stabilization. At the most it may be implied only with a high degree of uncertainty. There is nothing on the point following the enacting clause, and the legal value of a clause in a title is at least open to question if, indeed, it has any legal value at all. It was to make the Federal Reserve Act clear and definite in this respect that the Strong Bill was proposed. The Federal Reserve Board has been guided, in the main, by the exact wording of the Act, and their statements, as a result, afford practically no support in an official way for the advocates of price level stabilization, although, of course, it is

generally believed that some members of the Board are thoroughly sympathetic toward all movements in behalf of price level stabilization. It must be recognized, however, that the members of the Board not only have been held in check by the exact wording of the Act, but doubtless have been better informed in many instances regarding the many practical limitations, which exist with respect to any general plan for stabilization and credit control, than have the outsiders who are more aggressive in behalf of price level stabilization.

Must central banks control all credit in order to stabilize the price level?

If a central banking system undertakes to control credit in the interest of price level stabilization, it must have control over practically all credit used in exchange. To the extent that it does not have such control its effectiveness as a controlling agent is reduced. Probably no central banking system has any such complete control and as a result—if the logic of the situation has any value whatever—we observe another reason why no central banking system through credit control can stabilize a price level more than approximately.

Most central banking systems are specialized, at least to some degree, in their fields of activity. They make no pretense of covering every field of activity. In the United States, particularly, banking is broken up into specialized systems. Although it is true that specialization is being counteracted in some directions, it nevertheless is proper to consider the banking struc-

ture of this country as one of rather definitely specialized systems. There are investment banks, commercial banks, savings banks, industrial banks, trust companies, mortgage banks, intermediate agricultural credit banks, and a miscellaneous assortment of other specialized banking institutions. It hardly seems reasonable to expect a central banking system, which ordinarily comprehends only the commercial banking structure of a country—although, of course, other types sometimes are included—to be able to stabilize the price level through credit control when its power of control is so clearly limited. The Federal Reserve System has direct control only over those commercial banks and trust companies which are members of the System. It not only does not have control over the other types of banks, but it does not have complete control over the commercial banks and trust companies of the country. The membership includes only about one-third of the number and two-thirds of the assets of the commercial banks of this country. A recognition of these facts must make it clear that credit control through the Federal Reserve System is at best a very uncertain thing.

Should central commercial banks attempt to control non-commercial credit?

The question of credit control involves another consideration. Must the efforts of a commercial banking system to control credit be confined strictly to the activities of the commercial banks, or may the authorities go beyond the confines of commercial banking to non-commercial activities in an effort to make such

control more effective? This question has become extremely pertinent with respect to the relationship of the Federal reserve authorities to the stock market. The multitude of comments which have been made on this question reveals the confusion of thought that exists, and it is impossible to clarify the issues involved until the fundamentals are generally comprehended. Even after there is a general understanding of the elemental factors involved, there will remain many subsidiary questions involving differences of opinion which probably cannot be resolved without some difficulty. It is exceedingly important, therefore, that there be clarity as to fundamentals before an effort is made to examine related and subsidiary questions.

Limitations of the sphere of activity of the Federal Reserve System

The Federal Reserve Act specifically states that it is the function of the System to accommodate agriculture, commerce, and industry, and at the same time definitely excludes the use of Federal Reserve credit for speculative and investment purposes, with the chief exception of United States government bonds and notes. The Act has been interpreted by the Board to mean that the Federal reserve banks and Board must regulate the use of credit for the purposes stipulated, and when credit is being drawn off for other purposes steps must be taken to force such credit back into the channels for which the reserve credit was designed. When these corrective measures are taken—assuming they are effective—then the outside interests, which

have been able to drain off some of the Federal reserve credit, are made to feel the effects when the credit is withdrawn and kept within the Federal Reserve System.

Pressure to keep reserve credit within the System is brought to bear upon the members of the System, not upon the outside businesses that have been parasites on the System. Nothing in the Act gives the Board and reserve banks authority to regulate banks and other businesses not within the System, but it is their legal duty to see that the members of the System use the credit in the manner intended. Therefore when Federal reserve credit is drawn off by the stock market through indirect methods, it is the duty of the Board and reserve banks to bring pressure upon the members of the System to withdraw it and use it for the purposes stipulated in the Act. If the stock market is affected adversely, that is a mere incident in the legal functioning of the Federal Reserve System. Legally, the System has nothing to do with the stock market, except to see that its credit is not used there. Therefore to talk of the Federal Reserve System controlling the stock market is evidence of a confusion in thought. Only in the negative manner outlined above is there a connection between the System and the market.

But just how effective this negative relationship may be is another and a very practical question. This is the real catch in the legal argument. Many well-informed persons would be ready to insist that even though the action is negative it is as effective as if it were positive. Regardless of the degree of validity of

such opinion, it is essential, first of all, to recognize that in questions of credit control the Federal reserve banks and Board are limited to the control of reserve credit as used by the members of the System. Any outside effects flowing from such control, as, for example, the effects in the stock market, must be considered as merely incidental to the normal functioning of the System. This is not to say that such a plan is necessarily wise or that these so-called "incidental" effects are not too important to be looked upon as incidental. It is saying that this is the nature of the System and the manner in which it works. These are some of the results of the functioning of this type of a specialized banking system. Such a system may not be the best, or it may be, but before that question is considered it is necessary that we comprehend what we have and how it works.

If it be true, then, that the Federal Reserve System has no jurisdiction over the credit used in the stock market, except to see that reserve credit is not used there, it must be clear that there is a large supply of investment, if not commercial, credit over which the reserve authorities have no real control. This fact reveals another limitation to their power to control the total amount of credit in use and consequently the price level. It also reveals that the contentions of those persons who insist that Federal reserve authorities have been attempting to control the speculative market are not well founded, provided the Board and reserve banks really have not attempted to control the market directly. Under a rather liberal interpretation

it seems safe to say that they have been acting only indirectly and within legal limits. It should reveal further that the questions involved in credit control, which are analyzed below, are considered as lying within these limitations to the powers of the Federal reserve authorities.

CHAPTER II

THE MECHANISM OF CREDIT CONTROL IN THE UNITED STATES

The general mechanism

The mechanism provided for credit control falls into two classes: (1) general, and (2) special. The former class comprehends all those general and fundamental provisions found in almost any banking system, and which must be present if the credit structure is to exist or function at all, but which may or may not have a very direct bearing upon the degree and speed of elasticity of the credit system. For example, these general provisions are concerned with such important questions as the nature of the standard, whether gold, gold exchange in some form, or paper; the nature of the reserve requirements (including amounts and degree of concentration) affecting both notes and deposits; the clearing and collection mechanism; the kinds of paper made eligible for rediscount; the structure of the open market; the mechanism provided for the control of gold movements; the relation of the banking system to government financing; and the methods of administration, reports, and examinations.

The specialized mechanism

Into the second class falls that specialized mechanism designed to inject genuine elasticity into the credit

structure, that is, speed and accuracy in the responsiveness of credit changes to the needs of business at a given price level. These provisions for securing elasticity are superimposed upon those general ones in the first group. They could not exist without the first and fundamental ones, and yet those of the first group find their refinement and effectiveness in the second group, which are pointed specifically toward credit control. It is proper, therefore, to confine the discussion of the mechanism of credit control to this second group of provisions, although it is not forgotten that the other and more fundamental provisions are the ever-present foundation and are exercising a formidable influence over the credit structure at all times.

In so far as the Federal Reserve System is concerned, those provisions which would fall into the second group are: (1) the rediscount rate, (2) open market operations, (3) rationing of credit, (4) a regulation of the amount of Federal reserve notes entering into circulation, (5) persuasion, (6) warnings, and (7) a refusal to accept eligible paper for discount. Each of these will be examined in the order mentioned.

1. *The rediscount rate*

The major proportion of the discussion of credit control has centered about the rediscount rate, but it is easily *an open question whether its use provides the* most effective weapon available in credit control, or if, indeed, its manipulation is effective at all under certain conditions. The most reasonable position to take on this question seems to be that the use of the rediscount

rate is but one of several weapons available in credit control, that at times it is very effective, at other times ineffective, and that during most of the time its use must be supplemented by the use of some or all of the other instruments of credit control, the chief one being open market operations on the part of the Federal reserve banks.

The conventional theory regarding the functioning of the rediscount rate is that if it is raised it increases sufficiently the cost of credit for member banks to force them to raise their discount rates to their customers, thus checking credit extension. If it is desired to increase the extension of credit, then the procedure is reversed. This simple statement of principle is inadequate; it does not reveal the difficulties involved.

One of the difficulties in the way of the smooth working of this rediscount principle is found in the fact that it cannot affect all the banks in the Federal reserve district in an even manner. Some member banks may not be rediscounting at all, others may be rediscounting very little, and still others may be rediscounting heavily. Quite clearly only those which are rediscounting are affected at all directly although, conceivably, there may be a sympathetic response on the part of other member banks for psychological reasons. There probably is no evidence available to demonstrate whether such a sympathetic response takes place, consequently that question cannot be answered at this time.

There also is room for doubt as to whether rediscounting banks really are compelled to raise their

discount rates because the rediscount rate is raised. On this point the evidence seems inconclusive. Those who advance the argument that rediscounting member banks need not and do not respond quickly to changes in the rediscount rate urge that the cost involved as a result of a rise in the rediscount rate is a relatively unimportant matter to a bank which desires to extend credit to its customers, that banks do not rediscount all or even a large proportion of their paper, and that, as a result, the cost of rediscounting which falls on this small proportion of paper is almost negligible if distributed over all the paper discounted by the banks.

There is some support for this contention. For example in 1920-21, under authority of the Phelan Amendment to the Federal Reserve Act, four Federal reserve banks instituted progressive or penalty rediscount rates applicable to those member banks which borrowed beyond their so-called normal line of credit. Some of these penalty rates were high, in one isolated case reaching 87½ per cent, and yet these rates did not seem to deter those member banks which wished to rediscount. It was revealed at the hearings before the Joint Commission of Agricultural Inquiry (Reports published in 1921-22) that there was less response of the discount rates to changes in the rediscount rates in the four districts concerned than in the remaining districts which did not use the progressive rates. These facts have been interpreted to mean that the cost factor cannot be considered as a determining one in consider-

ing the effectiveness of the rediscount rate and that probably the most important factors are the psychological reaction and the fact that it is a traditional practice among American banks to keep their borrowings at a minimum. A change in the rediscount rate is an indication of the attitude of the Federal reserve bank and Board regarding the extension of credit, and doubtless brings with it some favorable psychological reaction, although it may be distributed very unevenly both in time and in area. If banks are not rediscounting they need not be concerned, unless they wish, to follow the desires of the Federal reserve bank, and others may prefer to favor their choice customers and their communities rather than run the risk of raising the discount rates during trying times.

On the other hand there are those who believe that the rediscount rate is a very important factor of control (in the direction of restriction) particularly when the rediscount rate is maintained above a certain point. It has been urged that the rate is effective, on the whole, when it is maintained above 3¾ per cent. One writer has insisted that the evidence ". . . seems to show rather clearly that in the last seven years a discount rate of 3½ per cent, or less, has tended to facilitate borrowing from the reserve banks and consequently to credit ease, whereas on the other hand a rate as high as 4 per cent tends to diminish slightly the willingness of the member banks to resort to the reserve institutions. . . . The facts seem to show that the rate of member bank credit expansion tends to increase

or diminish as the reserve rate is below or above a figure of about 3¾ per cent." [1]

It is not at all clear that the evidence is sufficient to support one of these views to the exclusion of the other. On the contrary it appears that there is some room for both contentions and that a generalization from either view cannot be applied at all times throughout the System. A safer generalization seems to be that sometimes and in some places a change in the rediscount rate is very effective, at other times ineffective, and at still other times the effects are very uncertain and confused.

The rediscount rate and the stock market. If credit is being drawn off into the stock market due to the fact that high money rates make it a profitable avenue of investment for member banks, it is very doubtful if the rediscount rate has any great weight as a weapon for preventing credit from going into such channels. Stock exchange collateral cannot be used as a basis for rediscounting, and consequently the rediscount rate can be brought to bear only upon eligible paper which is presented by the member banks. There seems to be no justifiable reason for penalizing such paper in an effort to induce member banks not to lend on stock exchange collateral. The rediscount rate is the family switch applied by the parent Federal reserve bank to all the children of the district—good as well as bad—in an effort to correct the bad practices of the naughty ones. If all need disciplining the procedure is justifi-

[1] H. L. Reed, "Federal Reserve Policy and Brokers' Loans," *The American Economic Review* (March, 1929), Vol. XIX, No. 1, Supplement, p. 84.

able, but to chastise the innocent in order to reach the guilty certainly is not justifiable. The argument offered in justification of the procedure is that eligible paper is offered for rediscount and the proceeds are used by the member banks to lend on stock exchange collateral and the best way to deter banks in such lending is to raise the rediscount rate and penalize a bank when it presents eligible paper for rediscount. But the point seems to be overlooked that the weapon is one which applies generally throughout the district.

It is clear that a rise in the rediscount rate tends to penalize the eligible paper and that the borrowers in agricultural, commercial, and industrial transactions must bear this part of the burden resulting from the application of this general disciplinary measure. Furthermore, this procedure will not cause member banks to cease lending in the stock market if the call rate has risen far above the rediscount rate. During several months of the year 1929, the call money rate was well above the rediscount rate and yet the argument was advanced persistently that the rediscount rate should have been advanced from 5 to 6 per cent in an effort to draw funds from the stock market. Just how a 6 per cent rate could compel banks to withdraw from a money market in which rates from 8 to 15 per cent were common is not at all clear.

Conceding everything possible to the view, it nevertheless appears that all such a change could possibly accomplish is a reaction growing out of a general fear that the rediscount rate is really effective. Such a reaction can come to pass only because of the fact that

the true nature of the rediscount rate is misunderstood. Since so many people are confused on the issue even those that are correctly informed are compelled to guess at what the net result will be.

The use of the rediscount rate under such conditions may bring deplorable results. It penalizes eligible paper, innocent banks and borrowers and, in addition, probably causes a reaction in the market lasting but a few days in which much money is lost without any permanent or lasting good being accomplished either in the form of controlling recalcitrant member banks or in stabilizing credit conditions and prices in the stock market. The events following the raising of the rediscount rate at the Federal Reserve Bank of New York, both in July, 1928, and in August, 1929, afford excellent illustrations of the manner in which the reactions have taken place. The raising of the New York rate on August 9, for example, caused a collapse in the stock market lasting but a few days due to the general and unintelligent psychological reaction, after which stock prices began to soar to new heights and brokers' loans reached unprecedented amounts. It would be difficult, indeed, to demonstrate how the rise in the rediscount rate could compel a withdrawal of Federal reserve credit from the market under such conditions. In fact it would be much easier to show that the increased rate brought two evils and accomplished no good. It penalized eligible paper and caused heavy losses for people in the stock market without accomplishing a withdrawal of Federal reserve funds from the market.

It should be noted, incidentally, that while these transactions were taking place, that is, when stock prices and brokers' loans were soaring (after August 9, 1929), the Federal reserve banks began to inject funds into the open market through the purchases of bankers' acceptances. If it be true that the Board and reserve banks have no right to make a move with respect to the stock market other than to attempt to keep reserve funds out of the market, then it seems clear that if the rediscount rate was raised on August 9 to induce banks to withdraw funds from the market —as questionable as that procedure is—then it seems quite inconsistent and illogical for the reserve banks to put funds into the market through the purchase of bills. On the face of these transactions it might appear that efforts were made to penalize legitimate paper and to favor the money market, since the funds derived from the sale of acceptances to the reserve banks could be used in the call loan market. There seems to be no ground for this procedure. The conventional principle is that the rediscount rate is raised when the Board and reserve banks desire to secure a general restriction of credit within the district, and this step is accompanied by a sale, not a purchase, of government securities, and by a withdrawal by the reserve banks from the bill market. Neither well-recognized principles of credit control nor ensuing events can afford support for a procedure like that followed on and immediately after August 9, 1929.

The rediscount rate and gold movements. Another influence which a change in the rediscount rate is

designed to exercise is over gold movements into and out of the country. If it seems desirable to retain gold or invite its movement into the country the rate is raised. If the gold holdings are excessive, a lowering of the rate relative to those obtaining in other countries will encourage the outward movement. But the rediscount rate is effective in this respect only when other market rates are not more effective. For example, the high call rates for money which prevailed so persistently during many months of 1929 were controlling in inducing foreign banks to send gold and other funds to this country. Frequently, also, central banks may move funds from country to country in accordance with their reserve requirements regardless of prevailing bank or foreign exchange rates. Consequently, it must not be forgotten that there are various instances and circumstances in which the rediscount rate is impotent in so far as the control of gold movements is concerned.

2. *Open market operations*

No system of rediscounting and credit control can be manipulated effectively without the mechanism involved in open market operations. Whether considered as supplementary to, on a par with, or superior to the rediscount rate as a regulative agent, open market operations are an inseparable part of the rediscount mechanism.

The types of rediscount and open market transactions differ somewhat among countries, but the fundamental principle involved is substantially the same. The relationship between rediscounting and open mar-

ket transacations may be illustrated briefly by the arrangement found in the United States.

The system in the United States. Through the rediscount system member banks may rediscount eligible paper as defined in the Federal Reserve Act, that is, commercial paper with a maturity not exceeding ninety days and agricultural paper with a maturity not exceeding nine months. In addition, member banks may secure "advances" from their respective Federal reserve banks on their own promissory notes, using as collateral government securities or commercial paper eligible for rediscount or purchase by the Federal reserve banks. Investment paper may not be discounted or used as security by member banks in securing advances.

In the open market the Federal reserve banks may purchase and sell, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances (commonly called bills), United States government securities, municipal warrants, bonds issued by Federal land banks and Federal intermediate credit banks, and bills of exchange of the kinds and maturities made eligible by the Act for rediscount. As a matter of fact the open market operations of the Federal reserve banks have come to be concerned almost solely with United States securities and bankers' acceptances.

The rate structure in the United States. Through an evolutionary process a certain system of rates, comprehending the rediscount and the various open market rates, has come into existence, and this rate structure tends to persist in normal times. Call money

rates, as well as others composing the system, occupied abnormal positions during most of the year 1929, consequently it is better to consult the typical rate structure for principles. The highest rate that would tend to persist in fairly normal times is the rate or rates charged their customers by member banks, let us say 6 per cent. Next in order comes the rate in the open market on commercial paper—single name promissory notes of important business concerns marketed through commercial paper houses. This rate perhaps is 5½ per cent. The rediscount rate should come next at about 5 per cent thus making it profitable for member banks to rediscount their own customers' paper and the commercial paper purchased in the open market. Commercial paper of the open market type is not eligible for purchase by the Federal reserve banks in the open market since it is single name paper. Next in order would come the rate on bankers' acceptances in the open market, for example 4½ per cent. This rate is lower than the rate on open market commercial paper since it is double-name paper, bears the indorsement of a bank, and is eligible for purchase by the Federal reserve banks. It is thus a very liquid paper and is an excellent investment for a bank's surplus funds. While bankers' acceptances are eligible for rediscount, in normal times they could be rediscounted only at a loss to the member bank, since the rediscount rate is above the open market rate on bankers' acceptances. This forces them into the open market where the member banks may sell them to their respective or other Federal reserve banks at the open market rate

in lieu of rediscounting at the rediscount rate. Below the acceptance rate comes the rate on government securities, let us say 4 per cent, due to extreme security and liquidity. The rates on call (and time) money may be anywhere. Sometimes call rates have remained for lengthy periods below the rates on government securities; at other times they have risen far above the other rates.

The position of these various rates within the rate structure is an important factor in regulating gold movements and in controlling the uses of credit by means of the rediscount and open market operations of the Federal reserve banks.

Just how effective the open market operations of the Federal reserve banks are or may be as a means of credit control and price level stabilization is debatable. Certainly it is difficult to make accurate generalizations. Much depends upon general business and credit conditions, upon the amount of paper which the Federal reserve banks hold in their portfolios for sale, upon the extent to which they are able to make purchases, upon the extent of the surplus reserves belonging to themselves and their member banks, upon the nature and extent of government financing, and upon the uses made of the money placed in the open market by the Federal reserve banks.

Ordinarily the open market affords an excellent and effective mechanism which may be used by the Federal reserve banks to offset the effects of government financing, tax payments, government disbursements, gold movements, seasonal movements in trade, interest

and dividend payments of corporations, and similar transactions which tend to upset the money market temporarily. But to insist that it alone, or it along with the rediscount rate, can be used to overcome business cycles or secular trends in price levels, reveals an optimism probably not yet justified by facts. Together they are valuable aids when properly used but despite their use for a long time in England and on the Continent, business cycles and secular trends in price levels have continued on their way. In this country the period of time since the World War has been too short to be indicative of much. In addition, it must not be forgotten that these instruments of control do not apply to all credit used which has a direct effect on the price level. Stock and bond prices, for example, which occupy no small position in the use of credit, are not included in the general-purpose index numbers that are used to measure the price level. Just what proportion of the total amount of credit used is affected by open market operations is highly doubtful.

3. *Rationing credit*

During the years 1918 and 1919 the Federal Reserve Board and reserve banks attempted to induce the member banks, by admonishment, to discriminate against non-essentials in making loans. Certain difficulties arose in attempting to apportion credit among essentials as against the non-essentials. One fairly obvious problem was due to the difficulty of distinguishing between essentials and non-essentials in production. Another was due to the fact that the unit

banking system made it exceedingly difficult to control the individual banks in their relations with their borrowers. The effort had some effect in some of the reserve districts, but on the whole it was not very successful in curtailing production in the so-called non-essentials. It is not easy to differentiate this means of credit control from "persuasion" mentioned below.

Another form of credit rationing appeared in 1920-1921 when, as a result of the Phelan Amendment to the Federal Reserve Act, a plan was instituted by which Federal reserve banks were to ration their credit among the member banks of their respective districts. The purpose was to see that no member bank borrowed more than its "normal line"—that is, what it contributed to the strength of the System in capital and reserves and was entitled to borrow as a result—except under penalties. The penalties were exacted by means of progressive rediscount rates. Four districts—Atlanta, St. Louis, Kansas City, and Dallas—tried the plan, but it was abandoned by August, 1921.

The experiment resulted in unfortunate incidents and appeared to accomplish little that was beneficial in nature. While the general principle that all members should have equal access to the reserve banks and that some members should not secure accommodation at the potential expense of the others seemed reasonable, it is just as logical to point out that when some members are not borrowing there is no reason why the others should not use the funds. This is nothing

more than economy in the use of credit; it permits the reserve bank to care for seasonal problems in the different industries and sections of its districts as they arise, and all members really benefit by such a pooling and use of funds.

At present there is no system of rationing being used except an informal one which is used both by the reserve banks and their members. The reserve banks have a general idea as to what constitutes a normal or abnormal line of borrowing by a member bank and may bring some pressure to keep it within reasonable bounds. Member banks do the same with respect to their borrowers, but in both cases the practice is nothing more than a fundamental principle in sound banking.

Rationing of credit in normal times is not used as an instrument of credit control. It has been used in abnormal times only and even then it was a relatively weak instrument of credit control.

4. *Regulation of the amount of Federal reserve notes entering circulation*

Since the public appears to interpret surplus reserves in the Reserve System as an indication of the possibility, if not probability, of credit extension, the reserve authorities have found it desirable to use various methods of reducing these reserves without causing an increase in the amount of credit in circulation. One method by which this is done is to pay out gold certificates in lieu of Federal reserve notes when the member banks desire paper money. This procedure

reduces gold reserves to the full extent of the demand for note currency as against a 40 per cent reduction resulting from the issue of the reserve notes. The reserve banks began such a practice in 1922, used it again in 1924, 1927, and at other times. This practice has the virtue of lessening the effects of an influx of gold on the reserves of the System.

Another virtue of the procedure is that in the event that it is desirable to secure an expansion of the reserve notes it is an easy matter to substitute the reserve notes for the gold certificates and permit the maximum note expansion to take place.

When gold flows into the country member banks pay off their indebtedness, their reserves multiply, rediscounting ceases, and it becomes difficult for the reserve banks to make their credit policies effective. The substitution of gold certificates for Federal reserve notes is one means of aiding the reserve banks in lessening the effects of changes in the reserves of the System.

5. *Persuasion*

Occasionally the Board and reserve banks attempt to persuade the member banks to adopt certain credit policies and practices in harmony with the wishes of the reserve authorities. The effectivenses of the method depends upon the disposition of the officers of the member banks who either are called into conferences or are instructed by letter. The attempt of the reserve authorities in 1918-1919 to put pressure upon the member banks in order to favor the essential as against

non-essential activities, while called rationing of credit, was little more than an illustration of the use of persuasion.

During the years, 1928-1929, persuasive pressure again was brought to bear upon the member banks in order to prevent the use of reserve and member bank credit in the stock market. Persuasion was a fairly effective weapon in this respect just prior to the temporary collapse in the stock market on March 26, 1929. On February 15, 1929, the Federal Advisory Council expressed its approval of this type of procedure as one means of credit control as the following minute of its proceedings shows: "The Federal Advisory Council approves the action of the Federal Reserve Board in instructing the Federal reserve banks to prevent, as far as possible, the diversion of Federal reserve funds for the purpose of carrying loans based on securities. The Federal Advisory Council suggests that all the member banks in each district be asked directly by the Federal reserve bank of the district to coöperate in order to attain the end desired. The Council believes beneficial results can be attained in this manner."

The letter which the Federal Reserve Bank of Philadelphia directed to its members on February 21, 1929, affords an illustration of the use of this type of pressure. Part of the letter read as follows: "We remind those who are availing themselves of our discount facilities that if they find their reserve for any reason deficient for anything longer than a very temporary period and have security loans to individuals or firms who are not

regular customers entitled to accommodation, they should reduce the volume of such loans rather than rediscount with us or borrow from us."

This procedure undoubtedly had some beneficial effects and induced many member banks to curtail loans in the call money market. At the best, however, it can be considered only as one of the weapons used in credit control. It probably is most potent when used along with other instruments. Its importance at any time is difficult to appraise. That it is a most desirable instrument to use, however, seems beyond question.

6. *Warnings*

When the other instruments of credit control do not appear to be accomplishing the desired results, warnings may be resorted to. While they may be used at any time, of course, they seem to be used only under extraordinary conditions. For example, the Board issued a warning on February 2, 1929, with respect to the use of credit in the stock market. Such warnings may be sent to the reserve banks, or to the member banks, or broadened to include the general public.

It is not easy to generalize regarding their effectiveness. They appear to send a chill up the spine of the speculative market for a few days at least and probably calm the speculative ardor of many people. They cause a wide discussion of the merits of the issues involved and probably exercise a very wholesome and sobering effect because of the weight of the authority back of them. It remains true, however, that specula-

tion and the amount of brokers' loans reached their greatest heights following and despite the warnings issued in 1929.

A warning from the Board doubtless is most effective when the banks and the public are convinced that the Board and reserve banks have in their possession some means of following up the warning with a more drastic measure in the event that the warning is ineffective. This weapon, the Board has not revealed, and as a result the general public has been led to believe that the Board has little power with which to back up its warnings. During the days of warnings regarding the use of credit in speculation, one heard much of the impotence of the Board and banks. Many believed that if the Board and reserve banks had any power to compel their member banks to conform to the desires of the authorities as indicated in the warnings, it would be better for all concerned if the Board would come out into the open and state frankly just what they could and would do. But this has not been done and as a result, the general public has felt justified in concluding that the reserve authorities have had no power by which to make their warnings effective. Some critics have derided the reserve authorities for their grandiloquent gestures in the face of no apparent method of enforcing their will on the member banks.

That they have an effective weapon to use upon the recalcitrant member banks in the event that they refuse to coöperate can be demonstrated beyond the least doubt. This is found in the seventh weapon of credit control now to be described.

7. *Refusal of the reserve banks to rediscount eligible paper*

This is a drastic weapon which the reserve banks could use against their recalcitrant member banks as a punitive measure. For example, if a member bank is lending against speculative collateral despite the desires and warnings of the reserve authorities, the reserve bank could halt further rediscounting until it cleaned out its portfolio as desired. Such a measure would prove effective enough for a member bank which is rediscounting. Its virtue lies in the fact that particular banks could be curbed in their violations of the wishes of the reserve authorities without penalizing other banks and businesses through the use of the rediscount rate.

Peculiarly enough this is a power seldom mentioned or discussed publicly by the Board or reserve banks. Moreover it apparently is rarely used to-day. In 1919 the Federal Reserve Bank of Dallas rejected 7.8 per cent of the total number and 6.9 per cent of the total volume of items offered for rediscount, but it is not clear that all this paper was eligible for rediscount. Other reserve banks also have done this from time to time, particularly the Federal Reserve Bank of Atlanta. That eligible paper may be refused for rediscount to-day is a fact not generally appreciated.

The authority for such action. The authority for such action lies in the Federal Reserve Act, in the Regulations and Rulings issued by the Board, and in a

decision recently handed down by the United States Circuit Court of Appeals.

In the Act it is found in the distinction between eligibility and acceptability of paper for rediscount. Not only must paper be eligible for rediscount, it must be acceptable as well. Acceptability involves the question of the use to which the funds are put, whether the member bank is lending too much to one customer or industry, whether it is overextending itself, and related considerations. It should be noticed also that those provisions of the Act dealing with the rediscount and open market operations of the reserve banks employ the word *may* and are permissive, not mandatory, in nature. In short, the reserve banks may rediscount or purchase eligible paper provided it meets other requirements of various kinds which come under the heading of acceptability or desirability but not eligibility. Among other things Section 13 of the Act provides: "The discount and rediscount and the purchase and sale by any Federal reserve bank of any bills receivable and of domestic and foreign bills of exchange, and of acceptances authorized by this Act, shall be subject to such restrictions, limitations, and regulations as may be imposed by the Federal Reserve Board."

The distinction between eligibility and acceptability appears in Regulation A, Section IV (Series of 1928) issued by the Board. It says in part with respect to certain kinds of promissory notes: ". . . the borrower's financial statement shall be accompanied by separate financial statements of such affiliated or sub-

sidiary corporations or firms, unless the statement of the borrower clearly indicates that such a note is both eligible from a legal standpoint and acceptable from a credit standpoint."

In a similar manner one may note in the *Digest of Rulings of the Federal Reserve Board* (1928 edition) the following statement: "Even though paper may be eligible for rediscount, a Federal reserve bank is under no obligation to rediscount it, but may accept it or refuse it according as it is considered desirable from a credit standpoint."

In the opinion rendered July 15, 1929, by the United States Circuit Court of Appeals for the Second Circuit, in the case of *Frank G. Raichle* v. *Federal Reserve Bank of New York*,[2] the following statements, among others, are pertinent to the question under consideration: "Certainly it was lawful to engage in open-market operations by the sale of securities, to fix the rediscount rate and to decline to rediscount eligible paper." (P. 570). "It is important to note that it is not under any compulsion to rediscount eligible paper for the words of the act in respect to rediscounting are wholly permissive." (P. 571). "Nor is the plaintiff aided by his charge that the defendant has wrongfully controlled member banks by coercing them to call collateral loans made to their customers, for the only method of coercion suggested is the refusal to rediscount eligible commercial paper." (P. 572).

Surely one could not expect to find better support for the contention that the refusal to rediscount eligible

[2] See the *Federal Reserve Bulletin* (August, 1929).

paper is a legal weapon available for the use of the reserve banks. When the writer, in another connection, set forth this contention prior to the opinion rendered by the Circuit Court of Appeals, it occasioned some surprise in semi-official banking circles and was alluded to as something new and as a point not generally understood. It is a point that has not been discussed popularly and has not been understood generally, but the legality of it should have been beyond question.

The same court made other interesting comments that are worth noting: "Warning before taking action would seem to be a safer practice than sudden and perhaps drastic action without warning." (P. 571). "We can see no basis for the contention that it is a tort for a Federal reserve bank to sell its securities in the open market, to fix discount rates which are unreasonably high, or to refuse to discount eligible paper, even though its policy may be mistaken and its judgment bad. . . . If it proceeds in good faith through open market operations and control of discount rates to bring about a reduction of brokers' loans, it commits no legal wrong. A reduction of brokers' loans may best accommodate 'commerce and business.'" (P. 572).

A desirable weapon for qualitative, not quantitative, control. This instrument of control should be a most effective one in forcing member banks to direct their credit into legitimate and proper channels. It appears to be the proper and the most desirable weapon to use to induce banks to curb their loans in the speculative market. It has the advantage of falling directly upon the spot at which the blow is aimed and at the same

time it need not penalize agriculture, commerce, and industry as is done when the rediscount rate is raised. If member banks knew they could not rediscount so long as they held speculative collateral security in their portfolios they doubtless would curb or cease to make such loans. This probably would frighten other banks, firms, and corporations and would cause them also to pause in their speculative lending since they probably would not care to risk the possibilities of having their lines of credit with member banks cut off. The total and final results should be effective enough.

Such an instrument of credit control is at its best in directing credit into its proper channels. It probably has no valuable function as a general stabilizer except in so far as the directing of credit into proper channels stabilizes incidentally. It is an instrument for qualitative rather than quantitative control, although there might be some beneficial effects upon the latter.

Since the Federal Reserve Act specifically provides that reserve credit may not be used in the speculative securities market it must follow that it is the legal duty of the reserve authorities to keep reserve funds out of the stock market. And if this seventh instrument of credit control is the one best adapted to keep reserve funds out of that market then the reserve authorities are remiss in the performance of their functions when they do not employ this weapon. Why they have been reluctant to use it in the past is not at all clear. As already indicated, this is an instrument which they seldom discuss publicly. Many persons undoubtedly believe, in the light of the recent and startling collapse

in the stock market, that the reserve authorities should have taken a more drastic action in order to obstruct more effectively the inflationary developments which resulted in the general collapse in the market. This position seems well taken when it is realized that reserve funds were drawn into the market beyond reasonable bounds. Perhaps in the future the reserve authorities may see fit to employ this instrument of control to a greater degree than has been the practice in the past.[3]

[3] After this manuscript was written, the Federal Reserve Board announced publicly its position on this question. It is interesting to note that this position is substantially that advocated by the writer in this chapter, in so far as the use of the rediscount rate and direct pressure on particular banks are concerned. The Board's policy, alluded to in the popular press as "the new policy of credit control," as "the direct-pressure policy," and as "the new technique," was set forth by the Board in its *Sixteenth Annual Report of the Federal Reserve Board for the Year 1929* in part as follows: "The board was not disposed to regard favorably further increases of the discount rate as the appropriate method of dealing with the situation presented, and particularly as the Federal reserve system was related to it; the board, therefore, did not approve the discount rate advances voted by some of the Federal Reserve Banks." (P. 2.) In another place the Board said: "The protection of Federal reserve credit against diversion into channels of speculation constitutes the most difficult and urgent problem confronting the Federal reserve system in its effort to work out a technique of credit control that shall bring to the country such steadiness of credit conditions and such maintenance of economic stability as may be expected to result from competent administration of the resources of the system. Whatever method, or combination of methods, of securing these results may eventually win the sanction alike of successful practice and of public opinion, the recent outstanding experience of the Federal reserve system in demonstrating the practicability of direct pressure has clarified the problem and advanced its solution." (P. 3.)

CHAPTER III

CREDIT CONTROL IN ENGLAND, FRANCE, AND GERMANY

A. In England

A policy of relative stabilization

It has been pointed out already that there is nothing in the English banking law which specifies that it is the primary function of the central bank to attempt to stabilize the price level. Such a requirement would be futile if it existed. The Bank of England must maintain the reserve structure of the country and this principle is not compatible with a stabilization of prices. It is true, however, in England as in the United States, that it is generally assumed that one of the prime functions of the central bank is to stabilize the price level in so far as possible—which always means within the limits of the conventional reserve ratios. Governor Norman probably expressed a typical viewpoint when he said: "It would further be the duty of a central bank to effect, so far as it could, suitable contraction and suitable expansion, in addition to aiming generally at stability, and to maintain stability within as well as without."

It should be observed that the English bank law does not require any bank to hold a prescribed percentage of

cash reserve against deposits although the reserve backing for notes is legally prescribed. The joint stock and private banks generally carry only enough cash to meet the current needs of business and keep reserve balances with the Bank of England which thus becomes a bankers' bank and holds the ultimate gold reserve for all the banks of the country. In normal times it rarely permits its gold reserve to fall below 33 per cent and generally the proportion is as high as 40-50 per cent. Thus even though legal reserve requirements (except with respect to notes) do not exist, England, like the United States, is bound to a gold reserve and cannot ignore it. Stabilization of the price level, therefore, can be nothing more than relative stabilization within the limits of surplus reserves.

The mechanism of stabilization

The mechanism which the Bank of England may employ in behalf of stabilization is somewhat akin to that found in the United States. There is the discount rate, known as the bank rate, which corresponds with the rediscount rate of the Federal reserve banks. The class of paper which the Bank may discount is not regulated by law but by the Court of Directors. The published bank rate, in general, is the official rate for discounting prime three-months' bankers' bills for parties other than the Bank's regular customers. It may discount for its favored customers at a lower rate or it may exact a higher rate in order to retard discounting.

In addition to the official bank rate there is a second discount rate (the so-called Lombard rate) which usu-

ally is ½ of 1 per cent above the bank rate. This is the rate charged for loans on various kinds of stock exchange and other collateral, the loans ranging in time from seven days to three months. Such loans may be made on marketable securities quoted on the London Stock Exchange, excluding mining shares, and other securities not quoted on the Exchange provided their value can be determined easily. It will be observed that in this respect English practice differs widely from that in the United States, since the Federal reserve banks cannot extend credit on the basis of stock exchange collateral. This practice in England gives the Bank of England a wider influence in the money market than can be exercised by our Federal reserve banks. Logically, also, it follows that the Bank of England has a wider field over which to exercise credit control in behalf of price level stabilization.

In England the bank rate is uniformly above the market or bill rate. A parallel situation obtains, ordinarily, in the United States, the rediscount rates of the latter country being maintained normally above the open market rate on bankers' acceptances or bills. The rate at which the London joint stock banks lend to their customers for commercial purposes is above the bank rate, the same relationship also existing in this country. England also has a Treasury bill rate corresponding to our rates on Treasury certificates, their bills running for two or three months. Then there is the call rate at which the banks lend money on call to discount houses and others, most of the security being in the form of bankers' acceptances.

Effectiveness of the bank rate

In England the bank rate has been considered very effective as an instrument of credit control. As the rate is raised in order to check expansion of credit the interest rates on ordinary loans follow closely and the effect is spread throughout the range of commerce and industry, increasing the cost of the capital required for carrying stocks of goods and forcing a liquidation.

In order to make its bank rate effective in times when funds are plentiful in the market, the Bank of England sometimes is compelled to enter the market as a borrower, that is, as a seller of securities. This reduces the balances of the banks which buy the securities, they then restrict their loans to the market, and this in turn forces the bill brokers to seek accommodation at the Bank of England at the bank rate. This principle, in general, is similar to the one in the United States except that in this country the member banks discount directly with or secure direct advances from the Federal reserve banks, whereas in England the banks call their loans to the bill brokers and compel them to borrow from the central bank.

Changes in the bank rate in England also exercise a quick influence over gold movements, a quicker influence than can be exercised in other countries due to the important position England occupies in the international short-loan market as a discounter of foreign bills and acceptances. Another consequence flowing from the important position occupied by England in the inter-

national money market is the relative frequency with which the bank rate is changed, these changes being far more frequent than in other countries. This frequency of changes is necessitated by the fact that there is an enormous superstructure of credit resting upon the Bank's gold reserve and to the fact that this reserve is exposed to demands from all sides which may reach dangerous proportions. But if these frequent fluctuations are disadvantageous to trade and industry, the country as a whole has reaped great benefits from the important position occupied by London in the world of finance, and from the high degree of excellence attained by the English banking system.

It is to be understood, of course, that during the period of the World War, when England abandoned the gold standard, the bank rate lost its normal influence in the money market. Since England's return to the gold standard the Bank of England and the bank rate have been restored to something like the position they occupied in 1914, although even yet the part played by the government in its financial operations is important enough to cause some disturbances in the short-loan market.

B. In France

The new reserve structure

The French currency system, since its recent devaluation and stabilization, is sufficiently different from that which existed prior to the World War to necessitate a distinction in what were once the fundamentals of the system and those that obtain at present. As a matter

of fact the present system has not functioned long enough to enable one to make safe generalizations.

Aside from the devaluation of the standard unit in June, 1928, France also instituted the principle of legal reserve requirements, the reserve consisting of gold bullion and gold coins equal to at least 35 per cent of the volume of circulating bank notes and liabilities on current account. The necessity of maintaining legal reserve requirements now places France in the same category with Germany and the United States in so far as the possibilities of this aspect of stabilization are concerned. Prior to stabilization of her currency system in 1928, France had no legal reserve requirements to bind her, although she maintained a relatively high customary reserve (being 61 per cent against her bank notes in 1913) and had a legal maximum to her note issues. In June, 1928, the legal reserve requirement for notes was substituted for the principle of maximum issue. Thus while there are obvious differences between the former and present note issuing system, it seems safe to say that under the former system, also, France could effect stabilization only within limits, ignoring war conditions which caused every central banking system to discard all idea of stabilization. In practically every other important fundamental affecting credit control the Bank of France occupies substantially the same position that it did prior to the World War.

The mechanism for stabilization

The Bank of France, unlike the Bank of England, has a bank rate to which it adheres rigidly. The bank

or discount rate applies to certain classes of commercial or agricultural paper having a maturity not to exceed 90 days and carrying three signatures of which two must be by residents of France. In some instances certain types of collateral security may be substituted for the third signature. The Bank of France also makes advances to its customers on the basis of commodities or documents conveying title to commodities, on gold bullion or coin, on French government securities or bonds guaranteed by the French government, or on department or municipal bonds of the French colonies and bonds of the Crédit Foncier. It does not make advances on so-called stock exchange collateral as do the Bank of England and the Reichsbank. The rates at which advances are made on the various types of bonds may differ from the bank rate on commercial and agricultural paper (being ordinarily above). For this reason the rate has been referred to as a Lombard rate, but it is not a Lombard rate in the same sense that such a rate is found in England and Germany. It will be noticed that the Bank of France discounts not only for banks but for private individuals which brings it into intimate contact with the money market. In the main, however, it is a rediscount bank.

The discount policy of the Bank of France is one of extreme moderation and is marked by slowness in changing the discount rate. This practice, it should be observed, is the opposite of that which attempts to make use of the rate of discount and of the control of the volume of credit in order to regulate prices. But normally, less machinery for stabilization is required

in France, perhaps, than in other countries due to the general stability of the economic order.

Prior to the new stabilization law, the Bank of France had another weapon to employ in its control of gold movements. It may be recalled that France was on what may be called the ragged edges of a bimetallic system. Her notes could be redeemed in either gold or silver and when it seemed desirable to impede the outward movement of gold the Bank would pay out silver for the notes thus forcing note holders to pay a premium for gold. But this weapon was not used rigorously and practically not at all after 1897. One of the chief methods used to assist in stabilizing its money market was to attempt to relieve monetary tension abroad, for example in London, by sending gold to the Bank of England in exchange for a portfolio of English commercial securities endorsed by the English bank. Relieving the gold tension in England would render it unnecessary for England to raise her rediscount rate and thus draw gold from France which would affect her exchanges and money market. The purpose was to prevent gold raids and only very indirectly protect her discount rate and reserve structure. After about 1910 the Bank of France also developed the practice of accumulating a portfolio of foreign bills of exchange which could be used advantageously as a factor in stabilization.

Part played by the Bank of France in credit control

It cannot be said that the Bank of France has played or does play as important a part in credit control as do

the Bank of England and our Federal reserve banks. This is due to the importance of the large private banks whose discount portfolios are relatively more important than that of the Bank of France (being about three times that of the Bank of France) and to the fact that they are not subject to the regulations governing the central bank.

While the large private banks have developed the field for the marketing of transferable securities they have weakened the official market by their practice of selling securities directly to customers. They also discount paper at a rate sufficiently above the official bank rate to yield a profit at practically all times in rediscounting with the central bank. This discounting is concerned with 45-90 day paper based upon transactions growing out of a sale of merchandise. The private discount rate outside the central bank, moreover, is not particularly significant in France since it is determined to a large degree by the confidence in the signatures on the discounted paper. Furthermore, such money rates in France are considered as something of a professional secret and are not published in French papers. The monthly statements of the four big banks of deposit have little significance and therefore have little influence in the market, since they cannot be read with any great degree of understanding. It is not the purpose of the banks to reveal their activities. Unlike items are grouped together in a most amazing manner. Consequently changes in the published statements cannot be looked to as an indication of what is taking place in the manner that one may do in the United States.

Besides the regular commercial 45-90 day paper, the big credit banks purchase bills of exchange in the market which have no official quotations. The best paper is that accepted by the great credit banks and the private banks and is presented to the great credit banks either through brokers or directly. Short term French treasury bonds also occupy an important place in the portfolios of these banks. Surplus funds are loaned on call to brokerage houses, the call rate being very close to the private discount rate.

It will be observed that there are but two money market rates outside of the official bank rate, the private discount rate—the basic rate being computed on prime bankers' bills—and the call money rate. They run so closely to each other that it is not possible to state that one is usually above or below the other. The formalities required by the French law make loans at sight against engagements or remittances of securities impossible. Call loans are made by the lender giving the borrower a draft dated the following day, without guarantee. The big Paris banks also finance the carrying of securities on the Bourse partly to facilitate speculation in those securities in which they are interested. These secured loans on stock collateral are more important than the unsecured ones.

The so-called money market in Paris does not have the significance that the money markets in London and New York have. Indeed the Bank of France has suggested the organization of a regular money market to take the place of the present complex and unorganized arrangements.

It will be seen, therefore, that the Bank of France operates under conditions quite different from those existing in England and the United States. At the most, its ability to control credit is of a very moderate kind due to the fact, largely, that its independent action is hampered by the private banks with their large deposits and by the nature of the so-called money market. The relative stability which exists normally must be credited to a number of factors of which the influence of the Bank of France is but one and a modest one.

C. In Germany

The modern Reichsbank and stabilization

It is difficult, in a brief compass, to present a summary picture of the principles of credit control in Germany. The system at the best has been a complex one and changes growing out of the World War have not lessened this complexity. The new Reichsbank, due to the place it occupies in the administration of the Dawes and Young Plans, must play an unusual part in maintaining desirable and necessary relationships between the internal and external credit structures.

The Reichsbank exerts a great influence upon the German monetary system, much greater than before the World War, and has tended to bring most of the great domestic banks under its influence if not control. As in England, France, and the United States definite reserve requirements are set up against the note issues. Unlike England, but as in France and in the United States, Germany prescribes definite reserve requirements against deposits. These requirements (40 per

cent against both notes and deposits), of course, indicate that any stabilization policy can work only within the limits of the surplus reserves.

The rate structure

The Reichsbank, like the Bank of England, has an official bank rate applying, in general, to bills of exchange growing out of commercial transactions maturing in not more than 90 days, bearing at least three names of known solvency, and to checks similarly secured. Satisfactory collateral may be substituted for the third name, but the volume of bills not bearing a third indorsement may not exceed 33 per cent of the total volume of discounted bills.

Then there is a Lombard rate, ordinarily above the bank rate, which applies to a wide variety of transferable securities enumerated in the organic act. Loans on these stocks and bonds cannot run longer than 90 days. Due to the absence of brokers in Germany, the Reichsbank and other large banks occupy an important position as stock dealers and their commissions in share dealings constitute an important source of income.

In the open market there are three sets of rates. One is the market rate on bankers' bills, ranging below the bank rate, quoted at short sight on bills running 30-55 days, and at long sight on bills running 56-90 days. These bills are used primarily in commercial transactions. There is also the monthly money rate (*Monatsgeld*) applying to advances made against stock exchange collateral or transfer of checks. This rate is above the rate on bankers' bills and sometimes above

the bank rate. The third is the day-to-day money rate (*Tagesgeld*) charged for loans that may be called at any time, that is, within twenty-four hours, as in France. These loans, ordinarily, are obtained by the smaller firms and usually against stock exchange collateral. This rate also tends to remain above the bill rate, fluctuates above and below the monthly rate, and sometimes rises above the bank rate.

Bank reports in Germany have some significance, as contrasted with those in France, and reveal the general status of the money market. Changes in the bank rate and in the Reichsbank's activities in the money market constitute the chief means of credit control. The frequency with which the Reichsbank rate is changed occupies a position between that of the Bank of England (the most frequent) and that of the Bank of France. The money market is influenced also by the Reichsbank and Prussian State Bank during temporary monetary shortages by paying higher rates of interest on deposits during the days of stringency. Along with its rediscount mechanism the Reichsbank also employs the policy of rationing credit when it thinks circumstances warrant the procedure. It is contended in Germany that the influence of the public institutions in the money market is much greater than in pre-war days.

The effectiveness of the mechanism of credit control

If one considers a period of years, excluding those of 1914-1924, it is doubtful whether the bank rate in Germany is as effective in credit control as that of the Bank of England, although it appears to be more

effective than that of the Bank of France. England's importance as an international financial center affords the chief explanation of the difference. The Reichsbank, in order to make its rate effective, sells bills and securities in the open market as do the Bank of England and the Federal reserve banks.

The effectiveness of bank rates as instruments of credit control depend upon several things. The degree of control exercised in the money market—including the domestic bill market, the foreign exchange market, the government securities market, the stock and bond market—is always an important consideration. The mechanism and degree of such control differ among the various countries. Perhaps above all is the general credit condition of a country, that is, whether the currency is on a gold basis or whether inflation has taken place with redemption an uncertain or remote possibility. In addition, the effectiveness of the method at different times in the same country (which has not left the gold standard) is not at all the same. Generalization with respect to the relative effectiveness of the different mechanisms for credit control and price stabilization, therefore, must be highly uncertain at all times.

CHAPTER IV

HOW THE FEDERAL RESERVE SYSTEM HAS USED ITS MECHANISM OF CREDIT CONTROL

Reserve policies in perspective

Only in a most general way will an effort be made to review the practices and policies which the reserve authorities have used thus far in their efforts to control credit. To enter into great detail not only would involve a voluminous discussion but it would not be particularly profitable. It seems more important to present the history of reserve policies in a general outline than to attempt to examine every important step taken by the reserve authorities toward credit control in an effort to see whether these steps happened to conform to what we now think is fitting and proper. It is too easy to look back and pass judgments regarding this or that particular action, the desirability of which was not easily appraised at the time. It is not so easy to map a plan for immediate or future action when that great mass of conflicting data, which reveals conflicting tendencies and interests, is studied in order to secure a basis for wise action.

It seems logical to suppose that the reason many critics are so eager to tell the Board and reserve banks what should be done at any given time may be

due to the inadequacy of the data of the critics—to the fact that they see only part of the picture. To follow a few trends and indications is a simple matter and leads to apparently simple solutions. A careful scrutiny of the bases for some of the criticisms directed against the Board often reveals just this fact. Entirely too much criticism, resting upon bases fundamentally unsound or inaccurate, or inadequate, has been aimed at the reserve authorities. This has not been good for the System. Much of the hostile criticism has involved the System to the point of genuine danger to its future well-being and the best interests of the country.

It is difficult to look back over the development of the System and see how most of the hostile critics have accomplished anything of genuine value. Their chief method has been that of scrutinizing in minute detail past practices and then measuring them against what they think they know now. Quite often the general perspective is lost sight of in such analyses. Much of the modern criticism reminds one of that launched so vigorously against the First and Second United States Banks with such deplorable results. It seems unfortunate, also, that we have not yet learned to take and keep our central banking system out of politics, at least to a greater degree than we have done it thus far. Constructive criticism, in all probability always is desirable, but it is not an easy thing for the layman, outside the inner workings of the System and without access to data equal to those in the possession of the Board, to be a constructive critic. He is likely to engage in ill-advised criticism and the unfortunate thing is that

the general public may be unable to distinguish the one from the other. Public opinion is an inflammable thing and the wrong type of critic often starts a flame which is entirely destructive in nature.

For these reasons, therefore, it is the purpose of the writer to point out the general perspective in which it seems proper to view the history of reserve policies without endeavoring to pass judgment, beyond what appears to be the most conservative, upon specific actions taken by the Board and reserve banks. An effort has been made in the first two chapters to indicate the nature of the existing mechanism and the generally accepted principles which are supposed to be applicable in its use. If these principles have been stated correctly they should serve as a guide to the reader in arriving at his conclusions with respect to the wisdom or lack of wisdom of the actions of the reserve authorities at particular times. Only when the Board and reserve banks have violated these principles in a manner that appears inexplicable have these facts been pointed out for the benefit of the reader for what they may be worth.

Reserve policies, 1914-1917

A study of the activities of the Board and the reserve banks during the years, 1914-1917, reveals that the Board and reserve banks were occupied with organization and development problems. The so-called discount policy of this period was a mere experiment. Authorities were divided as to whether the rediscount rate should be above or below the market rate. The Board

inclined to the former view and this principle was initiated. During the years, 1914-1916, the rediscount rate remained above the market rates in the financial centers of the country although not elsewhere. Open market operations, likewise were in an experimental stage, although the Board had arrived at the conclusion that the reserve banks were not to serve merely as emergency institutions, but continuously, in the interests of commerce, agriculture, and industry, through both the rediscount and the open market mechanisms, the open market operations being more important than the rediscounting prior to April, 1917. A system of preferential rates on acceptances, "commodity paper," and paper of short maturities also was instituted and this resulted in an exceedingly complex classification of rates from which it is difficult, indeed, to derive any consistent or clear-cut principle, except that there appears to have been a distinct effort made to favor the agricultural classes.

Certainly in so far as price level stabilization is concerned, it cannot be said that the Board and reserve banks during the years, 1914-1917, had been able to exercise an appreciable control, since the average of the prices of wholesale commodities rose from 100 in 1913 to 173 in April, 1917. The System was too weak to combat the effects of the influx of gold because the newly constructed rediscount and open market mechanism was too immature, and because the member banks, due to surplus reserves, did not find it necessary to rediscount. As a result, prices rose despite anything the reserve authorities could do.

Obviously no critic of the System is justified in looking at this period of rising prices as an illustration of how the credit control mechanism functions normally. Not only was the System too new to be used effectively in control, but it may be doubted whether a more matured system could have combated successfully the movements making for a rise in the price level during that period.

Reserve policies from April, 1917, to May, 1920

The period from April, 1917, to the collapse of May, 1920, was a period of war and post-war financing. In the main the policy was dictated by fiscal considerations and dominated at every critical stage by the secretaries of the Treasury. The outstanding considerations were the winning of the World War and the cultivation of a fertile market in which to sell government securities. In so far as the Board was free to develop principles of credit control apart from fiscal considerations it accomplished little of value. It was a period of kaleidoscopic changes in which the Board was confronted constantly with new and pressing problems.

Specifically, the United States placed an embargo on the export of gold in accordance with the Presidential proclamations of August 27 and September 7, 1917, thereby technically departing from the gold standard. The rediscount rates were lowered in order to facilitate the marketing of government securities at low rates and during the period of the war remained below the market rate on certificates of indebtedness, a procedure

just the reverse of that existing prior to April, 1917. It was just the reverse, also, of the English practice during the same period. In fact Treasury policy forced the Board to keep the rediscount rates at a lower level than existed at any other central bank.

The reserve banks, in the main, were engaged in war financing; and as the war progressed member banks relied more and more upon the reserve banks to extend credit to them on the basis of their war paper. Various steps were taken to make it easy to rediscount such paper. The major proportion of open market purchases, particularly in 1918, was in government securities, although there was a marked increase in the purchases of bankers' acceptances beginning in May, 1917. But the relative importance of all open market operations during this period declined when compared with rediscounting. This also constitutes a reversal of what existed prior to April, 1917.

Stabilization of the price level was impossible under these inflationary circumstances. About all that was done to combat inflation was attempted through the launching of various price fixing schemes and through efforts to ration commercial credit by favoring the so-called essential as against the non-essential industries and activities, and by attempting to apportion the amount of investment credit used in the stock market and in other investment activities. Such methods could not reach the seat of the trouble and as a result inflation was not curbed—at least it was not prevented.

Following the cessation of the war, government financing, of necessity, was continued and in addition

an orgy of spending and speculation broke loose in this country which carried prices to unprecedented levels, finally culminating in the collapse beginning (in general) in May, 1920. The Reserve System continued with the same low rate rediscount policy dictated by fiscal considerations. As a consequence the rediscount rates exercised no stabilizing effect over credit control during this period, since they were continued below the market rates on the various types of short term paper and on government securities. A peculiar condition which existed during the year 1919 was that the average rate charged on purchased paper was higher than the average rate on discounted paper.

Another peculiar step taken during 1919 by the reserve authorities was to increase their purchases of bankers' acceptances. This was done in the face of the heavy purchases of government securities, a steadily rising price level, and a decline in the reserves of the Federal reserve banks. It reminds one of a similar action taken during the period from August to October, 1929, when there was much talk about too much Federal reserve credit finding its way into the money market.

By the middle of 1919 the Board had committed itself to a policy of deflation and took certain steps designed to bring this about, despite the fact that the rediscount rates and open market policies conflicted with the general purpose. Warnings were issued by the Board to the reserve banks particularly with respect to the flow of reserve funds into the speculation (stock) market, but these warnings appeared to have

little if any beneficial effect in the direction of stabilization of the price level. An attempt also was made to place pressure upon the member banks to reduce their rediscounts and to curb their inflationary activities by means of conferences with officers of the member banks. The Board, further, sought to persuade member banks to distinguish between essentials and non-essentials in the extension of credit and to scrutinize carefully all paper offered for rediscount. Pressure also was brought to bear upon member banks to force the war paper out of their portfolios. But it would be difficult to demonstrate that these expedients had any noticeable tendency toward effecting price level stabilization.

While some members of the Board would have been glad to raise the rediscount rates during this period, Treasury financing and the dominating position of the Secretary of the Treasury in matters of reserve policy prevented any such action until the last two months of 1919 when an advance in the rates was made at the Federal Reserve Bank of New York on most of its paper. By January, 1920, the Board was freed from Treasury domination and made further advances in the rediscount rates.

It will be observed that during this period it would be difficult, indeed, to show that the credit control mechanism was organized or directed in a manner fitted to stabilize the price level. On the contrary the lesson is that it was not so organized or so directed. Its working violated what we now believe to be logical and fundamental principles of credit control. A large pro-

portion of the difficulties of this period, doubtless was due to the fact that the Board was not able, because of fiscal considerations, to act freely in applying sound principles of credit control.

Nevertheless it should not be inferred that, had the Board been free to act according to its best judgment, the mechanism of control would have been employed correctly. The official literature emanating from the Board during this period reveals a remarkable collection of inconsistencies in theories and in the positions occupied by the Board with respect to important principles of credit control. It appears that the Board, as a unit, was unable to enlighten the public as to what were sound and proper principles of credit control. After all, it seems that the period was not much more than one of experimentation with the mechanism of credit control—a trial and error method—within the limits left free from the dictation of the Treasury Department.

Reserve policies during the deflation of May, 1920, to January, 1922

Beginning in May, 1920, this country encountered the most drastic collapse in prices that it had ever experienced. The price level began to fall from the high point of 247 in May, 1920, and reached 138 in January, 1922, after which it began to rise and finally reached 159 in March, 1923.

During this period of severe deflation the reserve authorities maintained the high rediscount rates established during November and December of 1919, and in

January and June, 1920, until May, 1921, after which successive reductions in the rediscount rates at the various banks and on various types of paper were made. By June, 1922, the rediscount rate at the Federal Reserve Bank of New York on 90-day commercial paper was reduced to 4 per cent at which point it remained until February, 1923.

It will be noticed that during this period of rapid fall in prices the reserve authorities continued with high rediscount rates for a full year after the deflationary process had been in full swing. It seems quite clear that this particular instrument of credit control was not being used to encourage expansion and a stabilization of general business conditions. Many, if not most, competent authorities would insist that the rediscount rates should have been lowered just as soon as it was clear that a collapse was impending, and that the rediscount rate should be used in so far as humanly possible to anticipate and retard changes in the price level. As a consequence, the practices of 1920-1921 would appear to indicate that the rediscount rate as a mechanism of credit control not only was not used to stabilize but was a factor aiding in the radical deflation.

One circumstance in favor of the reserve authorities during 1921 was the fact that the rediscount rate was below the open market rate on 4-6 months commercial paper, with the exception of a short time in the middle of that year. The bank rate on paper, with government securities as collateral, and the buying rate on bankers acceptances ruled above the yield on government securities and the market rates on acceptances. This rate

structure is substantially what should prevail now in normal times, but during a period of deflation the arrangement would tend to inflict further hardship on those attempting to market acceptances and to borrow on government securities. It should be pointed out, however, with respect to the years 1920-1921, that despite the high rediscount rate which prevailed rediscounts increased rapidly and maintained a high level from February, 1920, to May, 1921, after which there was a marked decline, reaching a low point in August, 1922.

It should be recalled, also, that it was during this period (from April, 1920, to August, 1921) that the system of progressive rediscount rates, under authority of the Phelan Amendment, was instituted and abandoned in four reserve districts with very uncertain results.

Reserve policies during the rise of prices, January, 1922, to March, 1923

After January, 1922, the price level began to climb from its level of 138, reaching 159 in March, 1923. The rediscount rate at the Federal Reserve Bank of New York on 90-day commercial paper reached its low point of 4 per cent in June, 1922, and remained at this level until February, 1923, when it was raised to 4½ per cent. It will be noticed that during this period the rediscount rate again was out of tune with the change in the price level. Along with the rise in the price level there was a rather steady influx of gold from September, 1920, until December, 1923. A third factor which

might have invited an earlier rise in the rediscount rate was the steady increase of the surplus reserves in the reserve banks which had prevailed since November, 1920.

Open market operations, in a similar manner, were out of harmony with the general situation. While prices were falling from May, 1920, to January, 1922, the amount in dollars of acceptances held by the System declined from 561 millions in January, 1920, to 18 millions in July, 1921, from which point the amount held steadily increased to 355 millions in December, 1923. While the price level was rising from January, 1922, to March, 1923, the reserve banks were purchasing acceptances throughout the entire period. During the same period there also was relatively heavy purchasing of government securities in the open market by the reserve banks. The chief explanation offered for this step was that the reserve banks, because of the decline in rediscounting, believed it necessary to do something to earn their expenses. Offsetting, to some extent, the increased purchases of government securities and acceptances, however, was this steady decline in rediscounts until August, 1922, after which discounts began to increase. The net result was a slight decline in the total earning assets of the System until August, 1922, after which there was a rather rapid increase to January, 1923, due largely to an increase in discounts for member banks.

In several important respects during this period, therefore, the mechanism of credit control was not used according to what now appear to be the proper prin-

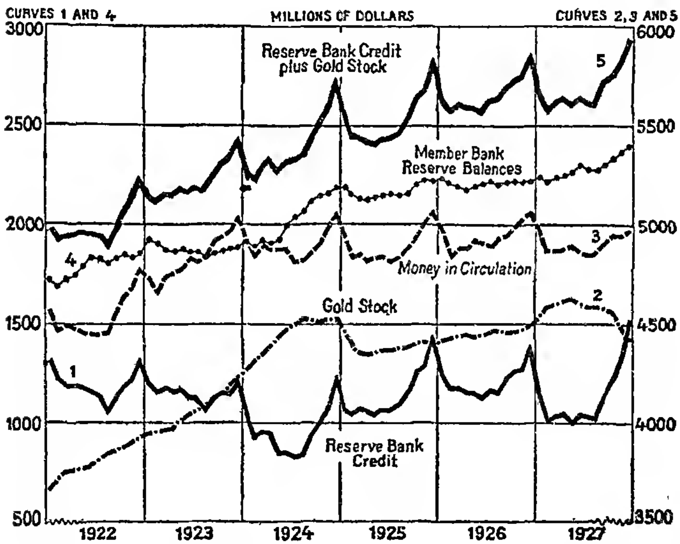
ciples. During this same period, also, it is difficult to discover anything like consistent principles in the official statements emanating from members of the Board. They did not seem certain as to their principles and policies, and the continued prevalence of inconsistencies in the various statements of principles compels one to conclude that the policies were largely opportunistic and experimental in nature.

The emergence of principles of credit control in 1923

The price fluctuations from March, 1923, to December, 1929, were within fairly narrow limits—in the main they did not exceed ten points—using the average prices of 1926 as 100. With this new base, the 159 of March, 1923, becomes 105, and the low point of 94 was reached and prevailed during the four months of April to July of 1927. It is during these years that one sees something like the normal functioning of the mechanism of credit control. In 1923 the Board began to express rather definite ideas as to what the proper principles of the rate structure should be. The old complex rate structure was abandoned for a single rate on all rediscounts and advances at any Federal reserve bank, and this rate began to assume something like its present so-called normal relation to the various open market rates.

The Board also began to perceive that there was a rather definite compensatory relationship existing between the reserve banks' open market purchases and rediscounting. They saw that as open market purchases increased, rediscounting tended to decrease in a closely

related proportion, and if paper were sold in the market, rediscounting tended to increase. They learned that the earning assets of the reserve banks considered *in toto* was the significant factor indicating the extent to which reserve credit was being used. The manner in which the total amount of reserve credit in use responds to the usual seasonal demands for it is shown clearly in the following chart.[1]



The members of the Board also stated their opinion regarding the effectiveness of the control mechanism, particularly the rediscount rate, and it appears safe to

[1] From *Fourteenth Annual Report of the Federal Reserve Board* (1927), p. 17.

say that since that time (1923) this pronouncement has been fairly typical of the position taken officially by the Board.

In writing of the rise in rediscount rates from 4 to 4½ per cent in 1923, the Board said: "The attitude of the Federal reserve system, as expressed in these rate changes, was not immediately reflected in any change of the volume of bank credit in use. This, however, is not to be taken as indicating that the advances of rates, slight as they appeared, were without consequence. The influence of the change of discount rates by the reserve banks can not be measured by any immediate effect that they might be expected to have on the total volume of borrowing by member banks. The credit process which finally gives rise to a granting of credit by a member bank has its beginning in the business plans and decisions of the bank's customers. The movement in the volume of credit at any given time, and particularly in times of business expansion, has a momentum which cannot be immediately checked, and while the expansion is actively going on the movement tends to gain momentum at an increasing rate. The volume of banking credit in use and outstanding, as recorded in the statements of the banks, is the outcome of commercial plans and commitments which may antedate by many months the extension of credit by the banks. Business transactions which are already under way will ordinarily be carried through to completion, quite irrespective of changes that have supervened in credit conditions and money rates. The rise in discount rates is not intended to interrupt or interfere with antecedent

commitments that are in process of completion, but rather to induce a more prudent attitude on the part of borrowers with regard to new commitments. It requires, therefore, some time for a rate change to show its effects in the altered lending operations of the banks." [2]

The Board in this same report (pages 6-7) also discussed in some detail the relation of discount rates and money rates, and showed that in 1923 the rate structure which existed approximated what we now have come to consider as the normal one. At the top was the member bank rate to its customers (average for all districts 5.48 per cent); next came the rate on 60-90 day prime commercial paper in the open market (averaging 5 per cent at New York); next, the rediscount rate (4.50 per cent for ten of the twelve months of the year at New York and an average of 4.47 for all districts); next, the rate on prime bankers' acceptances (4.125 per cent for 9 of the 12 months at New York); and lowest of all, the rate on Treasury certificates (averaging 3.87 per cent) at New York.

Beginning with 1923, the open market and rediscount operations really entered upon a new and a more normal phase of development. As a part of the Board's efforts to coördinate better the rediscount and open market operations of the System, an Open Market Investment Committee was appointed by the Board to function under its supervision and to conduct all open-market transactions for all the reserve banks. The Board also laid down a general policy, according to which open market operations were to be conducted.

[2] *Tenth Annual Report of the Federal Reserve Board* (1923), p. 4.

It was stated as follows: "That the time, manner, character, and volume of open market investments purchased by Federal reserve banks be governed with primary regard to the accommodation of commerce and business and to the effect of such purchases and sales on the general credit situation.

"As the Federal reserve act provides that discount rates shall be fixed 'with a view of accommodating commerce and business,' the adoption of this principle by the Board has established the open market policy on the same basis as the discount policy."[3] In still another place the Board said: ". . . it must not be overlooked that price fluctuations proceed from a great variety of causes, most of which lie outside the range of influence of the credit system. No credit system could undertake to perform the function of regulating credit by reference to prices without failing in the endeavor. . . . It is the view of the Federal Reserve Board that the price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes that work in the economic and business situation."[4]

It will be noticed that the Board has adhered to the strict interpretation of the Federal Reserve Act regarding its functions in credit control, and has not stated that it can stabilize the price level through the use of the existing mechanism. On the contrary, it insists that it is not possible for it to stabilize in any exact manner

[3] *Loc. cit.*, p. 16. [4] *Ibid.*, p. 31.

because of the momentum of a multitude of forces which carries the price level on to new levels, even after the regulative machinery has been put into action.

After pointing out that many of the factors in business which affect the price level "lie beyond the radius of action of the Federal reserve banks," the Board went on to say in the same report: "The problem of efficient credit administration is, therefore, largely a question of timeliness of action.

"No statistical mechanism alone, however carefully contrived, can furnish an adequate guide to credit information. Credit is an intensely human institution and as such reflects the moods and impulses of the community—its hopes, its fears, its expectations. The business and credit situation at any particular time is weighted and charged with these invisible factors. They are elusive and cannot be fitted into any mechanical formula. . . . In its ultimate analysis credit administration is not a matter of mechanical rules, but is and must be a matter of judgment—of judgment concerning each specific credit situation at the particular moment of time when it has risen or is developing." [5]

The Board at various times has maintained this position and it has received much support, both official and popular. For this reason it opposed the Strong Bill designed to force a stabilization policy upon it. In 1926, for example, it asked the Federal Advisory Council these questions: "In the opinion of the Council, is stabilization of the price level by means of rediscount rates and open-market operations possible? What

[5] *Ibid.*, p. 32.

count was an extension of credit by the member bank for nonproductive use. . . . Protection of their credit against speculative uses requires that the Federal reserve banks should be acquainted with the loan policies and credit extensions of their member banks—such acquaintance as can be obtained by examination of their member banks or by other forms of contact with them." [10]

Additional principles enunciated in 1925

In its *Annual Report for 1925* the Board made a statement regarding the relationship of the rediscount rate to the control of reserve funds used in the stock market, which has a particular bearing upon the same problem to-day. It said: "Throughout the latter part of 1925 the level of call-loan rates was considerably above the discount rate of the New York Reserve Bank. Recent experience has shown that in general it is not necessary to maintain a discount rate above the prevailing level of call-loan rates, in order to prevent member banks from borrowing at the reserve banks for the purpose of increasing their loans on securities. Member banks generally recognize that the proper occasion for borrowing at the reserve bank is for the purpose of meeting temporary and seasonal needs of their customers in excess of funds available out of the member banks' own resources; . . . In the infrequent instances where there has been evidence that member banks have borrowed at the reserve banks and at the same time have been increasing their loans on securities, the officers of

[10] *Ibid.*, p. 35.

the reserve banks have pointed out to them that it was possible for them to adjust their reserve position through changes in their short-time loan accounts rather than by recourse to the reserve banks." [11] This procedure, it may be recalled, was used in February, 1929, by the Federal Reserve Bank of Philadelphia in forcing its member banks to clean the speculative paper out of their portfolios before they undertook to rediscount.

The Board also pointed out in its report for 1925 that a study of the loans of member banks would reveal rather accurately the general uses to which the credit was being put. But to aid it in maintaining better control over the New York banks it decided at the end of 1925 to extend its reporting system by undertaking to collect and publish current information on the volume of loans made by the weekly reporting member banks in New York City to brokers and dealers in securities. These figures give the amount of loans made to brokers and dealers by the reporting banks on their own account, on account of out-of-town banks, and on account of others. The reports of brokers' loans, published currently as part of the weekly statement of the condition of the reporting member banks, have come to exercise a tremendous influence upon the stock market. The amount of brokers' loans, as a factor in the stock market, probably has as much effect on the action of the market as does the announcement of call money rates. At least it is one of the very important factors

[11] *Twelfth Annual Report of the Federal Reserve Board* (1925), pp. 15-16.

to be considered. The Board rendered a valuable service in calling for the publication of these data.

In 1925 the Board stated another principle of credit control which applies particularly to the reserve and member banks outside the chief money centers. The Board pointed out that in such districts the rates charged by member banks to their customers often ruled so far above the prevailing rediscount rates that the latter lost their effectiveness. Therefore, to see that the various member banks did not engage in unwise financing by means of rediscounting eligible paper, these reserve banks began to look to the acceptability of the paper in addition to its eligibility. In the words of the Board: "The reserve banks in the districts outside of the financial centers, therefore, in passing upon the loan applications of member banks consider not only the legal eligibility and soundness from the credit point of view of the paper presented for rediscount or as collateral for an advance, but also the general position of the borrowing bank, the volume and character of its outstanding loans and investments, and to some extent the character of its management."[12] The Board insists that when the reserve banks do this they are protecting not only the depositors of the member banks but also their borrowers, by preventing them from incurring obligations which they may not be able to repay.

Reserve policies in 1927

The year 1926 did not produce developments of enough importance to justify comment, but the years

[12] *Loc. cit.*, p. 18.

1927-1929 have seen such unusual developments in the uses of credit, particularly in the stock market, that there has been awakened in the minds of a mass of people many questions concerning the part played by the Reserve System in credit control. Of particular interest has been the questions concerning themselves with the relationship existing between the Reserve System and the stock market.

Beginning in May of 1927, the total amount of reserve bank credit in circulation started on a steady upward swing, rising from a little over one billion of dollars to over 1500 million at the end of the year. The usual seasonal fluctuation caused it to drop back to something over 1200 millions in February and March of 1928, from which it continued on a steady climb till it exceeded 1800 millions at the end of 1928. After December, 1928, there was a fairly steady decline, the low point of about 1300 millions being reached in May, 1929, after which a slight increase took place. But in general it may be said that during the two years, 1927-1928, there was a steady upward (*secular*) trend in the total amount of reserve credit in use. During this same period there was a steep and steady upward swing in brokers' loans, although, of course, there had been an upward trend since 1923. Loans and investments of all banks in the United States followed a similar trend.

With these facts before us it is surprising to note that during most of 1927 there was also a sharp upward trend in the amount of reserve bank holdings of United States securities, and at the close of that year an increase in the purchases of acceptances and in redis-

counting. In the face of the upward trends of these important factors, the rediscount rates at the Federal Reserve Banks of New York and Boston were lowered from 4 to 3½ per cent on August 5, 1927, followed by a reduction of all others to 3½ per cent by December, 1927.

Those who consider the use of credit in the stock market look upon the reserve policy of this period as unsound. Looking at other factors the situation is somewhat different. The wholesale commodity price level stood at 97 in January, 1927; by April it had fallen to 94 and continued at 94 for the four months of April-July, after which it rose to 97 in September and remained at this level throughout the last five months of the year. Some of the production index numbers also showed slight recessions by the middle of the year, but perhaps not enough to be of any great value as guides which would indicate the desirability of the reserve policies as employed in 1927, as we look back at the situation from this point of vantage. The draining off of reserve credit into the stock market was so pronounced that this consideration apparently should have outweighed the others.

The first eight months of 1927 saw an inflow of gold into the United States whose holdings reached their peak in May. In September an outward flow of gold began, which continued unbroken until July, 1928, when the flow was reversed. Thus the rediscount rate at New York was lowered while gold was still flowing into the United States. The Board's statement as to its policies in 1927 were in part as follows: ". . . In the

spring and summer, in the absence of considerable net gold movements, the system's policy was expressed in easing the money market through the purchase of securities and the reduction of discount rates; in the early autumn, when an outward movement of gold began, the system offset in part the effect of gold withdrawals through purchases in the open market; and finally, in the closing months of the year, the system's policy, in view of the rapid expansion of member bank credit, was to permit the continued outflow of gold to exert its customary tightening influence on credit conditions. . . . The gold flow into and out of the country . . . was thus a major factor in the credit situation in 1927. . . ."[13] Just how the outflow of gold was permitted to exert its tightening influence on credit is not clear, since the data show an increase in bills purchased from July to December, an increase in securities purchased in December over November, an increase in rediscounts from August to December, and an increase in the total amount of reserve credit in use from August to December.[14]

The Board, in its report for 1928, stated the situation of 1927 as follows: "In the autumn of 1927 the Federal reserve system, in view of the business recession in this country and a monetary stringency abroad adopted a policy directed toward easier money. This policy was a factor during the latter part of 1927 in bringing about a reversal of the gold movement, which had been toward the United States for several years, and a sub-

[13] *Fourteenth Annual Report of the Federal Reserve Board* (1927), p. 12.

[14] *Ibid.*, p. 55.

stantial outflow to other markets. The effect of this outflow on the domestic money market was at first fully offset by the reserve banks by open market purchases of securities. Toward the end of the year, however, in view of the rapid increase in the demand for credit from the security markets, these purchases were reduced in volume and finally discontinued. Credit conditions, nevertheless, remained easy, partly because the autumn and holiday increase in currency demand was considerably smaller than usual." [15]

A comparison of these two statements reveals some discrepancies. The 1927 statement is to the effect that the outflow of gold was permitted "to exert its customary tightening influence on credit conditions." The 1928 statement says that "credit conditions nevertheless remained easy." The 1928 statement says that toward the end of the year purchases in the open market were reduced and finally discontinued. The tables of purchases show that they not only did not decrease but increased, with the December purchases heaviest of all. Certainly they were not discontinued in 1927, as the following table will show:

RESERVE BANK CREDIT OUTSTANDING IN LAST FIVE MONTHS OF 1927 [a]

(In thousands of dollars)

	Bills discounted	*Bills bought*	*U. S. securities*
August	409,439	173,122	438,511
September	422,192	215,926	500,637
October	424,413	281,903	506,177
November	415,216	335,908	579,238
December	528,624	377,712	605,841

[a] *Fifteenth Annual Report of the Federal Reserve Board* (1928), p. 49; *ibid.* (1927), p. 55.

[15] *Fifteenth Annual Report of the Federal Reserve Board* (1928), p. 3.

The critics of reserve policies undoubtedly will find much to criticize in the reserve policies of 1927. Subsequent events appear to demonstrate that errors were made, and those who have been particularly interested in the relationship between the stock market and reserve policies doubtless will feel justified in thinking that the errors were serious.

Reserve policies in 1928

Turning next to the year 1928 one finds that the wholesale commodity price level was 96 for January-March, 97 in April, 99 in May, 98 in June and July, 99 in August, 100 in September, 98 in October, and 97 in November and December. Most of the production and distribution indices reveal a slight upward trend for the year. Gold exports continued from January to July, after which there was a net importation for the remaining months. Brokers' loans continued steeply upward as did the loans and investments of member and non-member banks.

In the face of these trends what did the reserve authorities do? The total amount of reserve credit in use in January was 1350 millions of dollars, from which it fell to 1271 millions in March. After March there was a steady increase to 1766 millions in December. There was a rapid increase in rediscounts, the amount in December being more than twice that of January and February. The amount of bills purchased declined gradually from 372 millions in January to 178 millions in August, after which there was an increase to 483 millions in December. The amount of United States securities held declined from 512 mil-

lions in January to 210 millions in August, after which it increased to 263 millions in December. On January 25 the Chicago rediscount rate was raised to 4 per cent; January 27, the Richmond rate followed; February 3, New York; after which all others followed in rapid succession, so that all stood at 4 per cent on March 1. On April 20, New York and Chicago reserve banks raised their rates to 4½ per cent and by June 7 all rates had reached the same level. On July 11, Chicago raised her rate to 5 and was followed by New York and Richmond on July 13. By December, eight of the reserve banks (Nos. 1-8) had a rate of 5 per cent; the other four (Nos. 9-12) adhered to the 4½ per cent rate.

A study of reserve policies during the year 1928, probably will reveal few errors. The sharp rise in the total demand for reserve credit after March was due to the outflow of gold, which reduced bank reserves and increased their rediscounts. The remainder of the increase is explained by the Board as being due to the normal seasonal demand for reserve credit. At the same time the Board was well aware of the fact that reserve credit was being drawn off into the stock market and took the proper steps to stop it—that is, by admonitions and consultations with the offending member banks. In the words of the Board: "In cases where individual banks have been guilty of abuse, the Federal reserve authorities have taken up the matter with officers of the offending banks and have made clear to them that their reserve position should be adjusted by liquidating a part of their loan or investment account rather than through borrowing. Abuses of the privileges

of the Federal reserve system, however, have not been general among the member banks. The tradition against continuous borrowing is well established, and it is the policy of the Federal reserve banks to maintain it." [16]

The Board was well aware of the difficulties of controlling the use of all its credit, realizing that there are indirect ways of drawing it off into the stock market. Among the many excellent things said by the Board in its report for 1928, are the following: "In determining upon credit policy the Federal reserve system is always under the necessity of balancing the advantages and disadvantages that are likely to follow a given course of action. . . . It is impossible to foresee all effects of a credit policy and difficult to appraise them even after they have developed. It is certain, however, that the Federal reserve system must steer its course with reference to broader developments and longer time objectives than day-to-day or month-to-month changes in any particular line of credit. Principal among such objectives are the continuous provisions of credit at reasonable cost, in amounts adequate for the requirements of trade and industry and the safeguarding of our gold reserves, which are held in trust to meet future needs, against unduly rapid absorption through expansion of credit." [17]

[16] *Fifteenth Annual Report of the Federal Reserve Board* (1928), p. 8.

[17] *Ibid.*, pp. 9-10.

Reserve policies and the collapse of the stock market in 1929

The year 1929 was one of intense interest for all those concerned in the girations of the largest bull market followed by one of the worst collapses that this country has ever witnessed. The experiences of the year should have taught the mass of people that the rediscount rates, whether high or low, were not responsible for the boom or collapse. The explanations offered have been many, but one hears practically nothing about the responsibility of the rediscount rate. Perhaps the time has arrived when people see the real lack of connection between the rediscount rate and what happens in the stock market.

The wholesale commodity price level remained rather steady for the months of January to August, the widest variations being from 96 to 98. Retail prices showed a rise from January to August. The total amount of reserve credit in use declined from 1570 millions of dollars in January to 1303 millions in September. Discounts at the reserve banks increased slightly from January to September, the heaviest amount being in the months of July and August. The amounts of bills purchased declined from January to a low point in July, after which time there was a steady increase. The same situation existed with respect to United States securities. Brokers' loans were mounting rather steadily to unprecedented heights. Loans on securities by reporting member banks showed about a million dollars increase from January to September, although this was

more than offset by a decline of a half billion dollars in investments. For every month up to September, except January, there was a net importation of gold accompanied by a general increase in the reserves and reserve ratios of the Federal reserve banks.

On August 9 the Federal Reserve Bank of New York raised its rediscount rate from 5 to 6 per cent, all other reserve banks having rates of 5 per cent at that time. This arrangement was still in existence on October 1. The normal relationship between the rediscount rate and other rates in the open market had been distorted for several months. In August the rate on 4-6 months prime commercial paper was 6-6¼ per cent; on 90-day prime bankers' acceptances, 5⅛ per cent; on United States Treasury notes and 3-6 months certificates the yield was 4.59 per cent. Call and time rates were 8 per cent and above. In March call rates had reached 20 per cent.

A study of the trends of production and of the price level would seem to indicate that there was no good reason for raising the rediscount rate from 5 to 6 per cent in New York in August, 1929. But to raise the rate and then increase the purchases of bills and securities appears to be an inconsistent procedure. Raising the rate tends to place penalties upon eligible paper; and pumping funds into the open market tends to place more money at the disposal of the stock market. There was no valid reason for penalizing eligible paper at that time and certainly every reason why the reserve authorities should have been reluctant to put funds into the open market, where they could be drawn off into the

stock market. Raising the rate from 5 to 6 per cent could not keep reserve funds out of the stock market. With all the clamor regarding the diverting of reserve funds to the stock market and with business already penalized sufficiently by the loss of such funds, it would seem highly unwise from every standpoint to penalize commerce, agriculture, and industry still further by means of the rediscount rate. With the bull market and brokers' loans rising to new heights after the raising of the rediscount rate, business could ill afford to bear the additional burden (as the general recession of 1930 should demonstrate). With the collapse of the stock market, beginning on October 11 and reaching a serious stage by October 16, business, in general, needed every encouragement possible. The 6 per cent rate was permitted to continue until Nevember 1, at which time it was reduced to 5 per cent. On November 15 the rate was dropped to 4½ per cent. Other reserve banks showed a tendency to follow the Federal Reserve Bank of New York in lowering their rates. The rate never should have been raised, and once raised, it should have been lowered at the first indications of a genuine collapse in the stock market, not only for the psychological effect upon business, but to remove a very real penalty on the eligible paper being rediscounted. The only certain effects of the raising of the rate in August were the penalizing of eligible paper and the temporary drop in security prices for a few days, from psychological reactions, with no permanent benefits for anyone.

In March, when stock market prices and brokers' loans were rising to new heights, the Board and reserve

banks engaged in the proper procedure: They issued warnings to the banks to curb all loans to the stock market. This procedure should have been repeated in August. If the explanation for putting reserve funds into the open market after August 9 is valid—that is, to meet the increasing and seasonal demands for funds—then the rediscount rate should have been lowered or left undisturbed.

Procedures like those of August 9, 1929 and August 5, 1927 fly in the face of the usually accepted principles by which the mechanism of credit control is presumed to be administered. Persons interested in following closely the credit control policies of the reserve authorities find it difficult to explain adequately such actions, or to devise a set of principles broad enough to comprehend them which, at the same time, would be workable in any very precise manner.

CHAPTER V

PROPOSED CHANGES IN THE SYSTEM OF CREDIT CONTROL

Criticisms of the Reserve System

The criticisms directed toward the reserve authorities with respect to their methods of credit control have been many during the last two years, particularly since the stock market has become a subject of such intense interest. Some of these criticisms have been mild and well balanced in nature, in fact, little more than queries from sympathetic and understanding persons in search of a more complete explanation of the activities of the reserve authorities at given times. Others have been rather pointed and have carried with them constructive suggestions either regarding credit control in general, or the relation of reserve credit to stock market activities. Still others have been of the most rabid and insensate sort and yield nothing of any value in a constructive sense; in fact, it appears that quite often the chief purpose of such ill-advised criticisms is to attract attention to their authors.

Most of these criticisms, particularly those of the last type, may and will be ignored. To state and examine them all would require more space and time than they

deserve. It must suffice to enumerate the chief ones and examine briefly but three, which seem to be most worthy of consideration.

A survey of the books, periodical literature, speeches and hearings in the House and Senate, and a miscellaneous assortment of bank publications, will reveal a confusion of criticisms and proposals for changes. It has been urged that the Federal Reserve Act be amended, in order to compel the Board to attempt to stabilize the price level; that listed stocks and bonds be admitted to rediscount; that call loan banks, independent of the Reserve System, be organized; that reserve banks be compelled to refuse credit to member banks which lend in the call money market; that member banks should be prohibited by law from lending on call; that stock gambling be prohibited; that the Board be given the power to increase the reserve requirements of the banks that lend too freely in the stock market; that we revert to *laissez-faire* and permit the member banks and the stock market to run their own affairs; that we place a heavy tax on all stocks sold within sixty days; that we introduce term in lieu of the daily settlements on the stock exchange; that the tax on profits from stock sales be removed, in order to induce more sales; that the Board should be deprived of all power over the rediscount rate; that the power to regulate the price level by means of the rediscount rate be given to Congress; that the call money rates be limited to 5 per cent; and that the interest rates of all lending banks be restricted to 5 per cent as a maximum. There may have been others, but these are sufficient to

give a fairly accurate picture of the incongruous assortment of criticism and suggestions which have found their way into print. A fair proportion of these emanated from the House and Senate of the United States and reveal the possibilities of real danger for the System, were it subjected to amendatory legislation in times of stress. The first three of these proposals will be examined briefly.

The attempt to force a stabilization policy upon the Reserve Board

In 1926 and again in 1928 Congressman James G. Strong introduced a bill (H. R. 7895 in 1926 and H. R. 11806 in 1928) designed to amend the Federal Reserve Act, in a manner that would remove any doubt as to the fact that the chief function of the System is to stabilize the price level. The main purpose of the proposed amendment is found is Section (*h*) of the Bill, which reads: "The Federal reserve system shall use all the powers and authority now or hereafter possessed by it to maintain a stable gold standard; to promote the stability of commerce, industry, agriculture, and employment; and a more stable purchasing power of the dollar, so far as such purposes may be accomplished by monetary and credit policy. Relations and transactions with foreign banks shall not be inconsistent with the purposes expressed in this amendment. The Title embodies the same general purposes. Section (*i*) provides for publicity of reasons for changing the rediscount rate.

The hearings following upon the presentation of

these bills include a valuable collection of opinions regarding stabilization, credit control, and related questions. In general, members of the Reserve Board took the position that they can and are doing, under the present Act, all that it is possible for them to do toward stabilization. It is not possible to state that the Board as a collective group had a single belief and, furthermore, one cannot be certain that individual members maintained consistent positions throughout the hearings. The Governor (in 1928) insisted that stabilization was impossible and that the Board was not attempting it. Another member of the Board insisted that stabilization of the price level and of commerce, agriculture, industry, and employment at the same time was impossible, and that the whole theory of the bill was untenable.

It has been pointed out in Chapter I that so long as a country is anchored to gold reserves, with legal restrictions as to the minimum, it is impossible to stabilize the price level, except within the limits of the surplus reserves. Any policy of stabilization must recognize, furthermore, the fact that the Reserve System does not have control over all credit in use, and also the international complications which are involved in any effort to stabilize a price level. It is doubtful if any nation could stabilize its price level on the basis of gold reserves without entering into some sort of agreement with foreign powers. Stabilization at home sooner or later would bring a wide fluctuation in foreign exchange rates with the attendant handicaps to importers and exporters, and finally a loss of gold that could not

be stopped if a consistent effort were to be made to maintain the stability of the price level.

Thus far there has been a pronounced policy of keeping our Reserve System free from foreign entanglements. This attitude has manifested itself clearly with respect to the new World Bank for International Settlements. Isolation and stabilization apparently are not compatible. The wording of the Strong Bill seems to provide sufficient latitude, however, for such coöperation in that part of Section (*h*), which reads: "Relations and transactions with foreign banks shall not be inconsistent with the purposes expressed in the amendment." This aspect of the difficulty lies not in the bill but elsewhere.

It does seem true that the present Reserve Act provides the Board with all the authority necessary for it to accomplish in stabilization all that is possible under our present type of money and banking system. The bill appears to add little of value in this respect. It might have the virtue of pointing the Board definitely toward a stabilization policy, and clarify the public mind as to the general and central purpose of the reserve policy regarding stabilization. Some people still look to the Title of the present Reserve Act for guidance and consolation; the Strong Amendment might bring them additional solace, but it is difficult to see many other tangible virtues in this part of the bill. The Board probably could be as free of stabilization purposes then as now. Moreover in times of war no stabilization policy would hold. Certainly the general purpose back of the Strong Bill is an admirable one, and

the passage of the bill, conceivably, could accomplish some good not now foreseen. It is difficult to see any dangerous factors in it; its general futility is probably its chief defect.

Section (*i*) providing for publicity of reasons for changing the discount rate, offers the possibility of a welcome addition to the present Act. Specifically, the Bill provides that "whenever any decision as to policies is made or whenever any action is taken by the Federal reserve system, tending to affect the purposes of stabilization, that such decision or action and the reason therefor shall thereafter be published by the governor of the Federal Reserve Board at such time deemed by him to be most effective in furthering such purposes, and at least once each year in the annual report of the Federal Reserve Board to Congress."

As this proposed amendment reads, it might or might not add anything to the present method of reporting to the public; all depends upon the discretion of the Board. Some of the authorities urged that there be no publicity; others desired immediate and unrestricted publicity. While Mr. Strong favored the latter view in general, he thought he recognized the possibility of danger in immediate publicity and thus left the matter in the hands of the Board, substantially as it is to-day.

More immediate and more complete publicity regarding actions taken by the Board and banks, in the opinion of some people, has seemed desirable, if it can be accomplished without danger to the best interests of the public. There appears to be no virtue, so the argu-

ment goes, in keeping the general public in the dark regarding the real reasons for a change in the rediscount rate or the use of other instruments of credit control. The frequent assertion that the Reserve Board and Board of Directors of a reserve bank could not agree as to the real reason for some changes, does not seem to provide a good answer. If there is a variety of reasons, perhaps this variety could be given to the public. The searchlight of public criticisms might be a valuable aid in developing consistent policies.

Permitting member banks to rediscount notes secured by stock exchange collateral

It has been urged rather frequently that if the reserve banks are to secure adequate control over the use of their credit in the stock market, they must be given the power to discount the notes of the member banks secured by listed stock and bond collateral. Such a procedure, it is insisted, would give the reserve banks a much better control over the activities of their members, with respect to the use of credit for such purposes, than now exists through the present mechanism. Under present arrangements the reserve authorities have only limited control over member bank credit and, therefore, if they are to have fuller control such a step should be taken to make it effective. It is urged that it would give direct control over what it attempts, in the opinion of some people, to control indirectly without success. The reserve authorities then, so it is thought, could check the flow of too much credit in that direction, just as it is supposed to be able to check the flow of too

much credit into agriculture or various commercial activities at particular times.

From a logical standpoint much may be said for the plan. If a central banking system is to stabilize the price level through credit control it must have control over the use of credit at all essential points, and it would seem that the use of credit for speculative purposes is most certainly an essential point. The crux of the question appears to be whether this country wishes its Federal Reserve System to continue as a specialized banking system and to attempt to control commercial, industrial, and agricultural credit within the limits now possible, or whether it wishes to convert it into a heterogeneous system in the hope that its control will be more effective.

This country has been one in which specialized banking systems have developed and, in the main, specialization is still the principal line of development, although heterogeneity is creeping in at various points. In England and on the Continent the central banks have engaged in a much wider variety of financing than has been possible for any of our systems in this country. Whether a great number of specialized banking systems is better than one or a few systems engaged in a great variety of activities, probably is a very debatable question. But when the central reserve system is narrowly limited in its activities and yet is expected to control the use of credit and the price level, the weight of the argument appears to favor heterogeneity.

On the other hand, it is not clear that the participation of foreign central banks in the security markets

has brought any greater degree of stabilization than the reserve banks have been able to secure in this country. The evidence on this point seems highly inconclusive. Only the logic of the arrangement appears to favor the foreign practice.

It might be that if our Reserve System were permitted to rediscount on the basis of stock exchange collateral, greater stability in the call rates, and consequently security prices, would be the result. And such a step might be considered desirable. Under present arrangements it seems clear that the effects, flowing from the efforts of the Reserve System to keep its credit out of the market, are of a sort which make for rather violent fluctuations in call rates. Present procedure is predicated upon the idea that the chief purpose is to protect reserve credit, and the effects on call rates and security prices must be considered merely incidental. A greater wisdom on our part might reveal that our present ideas and procedure are mistaken ones. It requires some temerity to be dogmatic about either method of procedure without a very detailed study of the relative virtues and possibilities of the two methods. Some of the difficulty arises from the uncertainty regarding the legitimacy of some of the functions performed by the highly organized stock market.

The development of call loan banks

If individuals or corporations find it profitable to form a bank or banks to gather up the funds of those who wish to deposit with a bank, which is lending entirely in the call money market, there seems to be no

good reason why this should not be done. Such a development certainly would be in harmony with the tendency in this country toward specialized banking systems. This kind of a development—and one such bank was organized for a short time in New York City—does not solve any problems of a fundamental nature, however. It does not help along the cause of price level stabilization and credit control. On the contrary, it would seem to complicate it still further. It would remove just that much more credit beyond the control of the Federal Reserve System, which is our only agency that can accomplish anything in the direction of price level stabilization through the control of credit.

Prevailing uncertainty regarding reserve policies

Many of the criticisms—whether wise or unwise—of the reserve authorities are due to the general lack of understanding regarding the principles which the Board and reserve banks are presumed to follow. They are due also to the lack of adequate explanation for specific acts taken by the reserve authorities. The interest of the general public in reserve policies probably is greater now than ever before, but the Board at present publishes relatively little material of an explanatory nature that reaches the general public. The important material found in the annual reports, monthly bulletins, and the reports of hearings before Congressional committees, does not reach the general public to any great extent. It is true, also, that such material reaches this limited public quite some time

after the circumstances which gave rise to it have become matters of history. Then these reports are studied and interpreted by the interested few who weave a considerable proportion of conjecture into their interpretations. An official dissertation by the Board regarding reserve policies is not in existence. The organized materials relating to policies come from outsiders or from ex-members of the Board, who speak or write only as individuals. The Director of the Division of Research and Statistics has published a valuable treatise, but only as an individual. Consequently it is not possible to say exactly what the official position of the Board is regarding various important matters and, as a result, confusion of opinion continues to persist.

Perhaps it is too much to expect such a publication from the Board. The difficulty of securing agreement among the various members is recognized, yet the fact remains that the members of the Board act as a unit. If the reasons for these official actions could be made public in a manner that would afford the public genuine enlightenment regarding reserve policies, it might be eminently desirable. It is recognized, also, that there is room for several dissertations, because of the variety of important subjects demanding attention; but whether such publication take the form of a voluminous single dissertation or several smaller ones, it does appear that it would clear the air of many of the prevailing confusions, criticisms, and controversies that now exist. Whether such a procedure would bring in its trail more harm than good may be a very debatable question.

Present principles appear very broad and elastic

The various statements concerning principles of credit control, which have been enunciated by the Board in 1923, particularly, and at certain other times, as in 1925, 1927, 1928, and 1929, seem to justify the belief that the principles of credit control, which have been outlined in Chapters I and II, are the ones which have guided the Board only in a most general way during the last six years. They are narrower and more rigid than those implied in the various statements made by the Board in 1923 and subsequent years, as outlined in Chapter IV. The latter principles are broad enough to permit the Board to use its judgment as it sees fit every time an emergency or a new problem arises, and at the same time avoid rather successfully the charges of being inconsistent. Indeed, the principles are so broad in some respects that it is practically impossible to tell with any degree of certainty what the Board may do under any set of circumstances. The policy of silence, in the opinion of some, has been one of its chief protections in the last six years. There are undoubtedly many people who believe that the policy of silence—action without adequate comment or explanation at the time of action—carries with it the weight of extreme profundity. On the other hand, there are others who believe it is only a cover for a lack of a consistent policy, and are insistent that the Board should act more openly and explain in greater detail the reasons for its specific actions at given times. It is believed that there is available for use a more definite mechan-

ism for credit control than the Board has been willing to recognize, that its elements are sound in principle and workable, and that the Board should use them. The elements of this mechanism are the seven which have been set forth in Chapter II. But the Board's policies are broader and more elastic, and the mechanism used less comprehended, than these. In any event, if the seven instruments and the accompanying principles for their use are the instruments and principles used by the Board, they apparently have not been followed with consistency.

As a result, the discussion and disputes continue. The Board, in general, is rather non-committal while the interested public frets and spins new theories regarding each new step taken by the Board and reserve banks. Some of the theories developed by the outsider convict the Board of downright inconsistencies. Other persons attempt to build theories around the assumption that the Board must be correct; they endeavor to construct a set of principles broad enough to comprehend in a consistent manner all actions of the Board. Sometimes it appears possible to do this, thus giving the central authorities the benefit of every doubt, but hardly is the mosaic constructed before some new action is taken which fits nowhere within the design. It requires an optimist, apparently, to insist that there is a consistent design in existence. As a result, it is but human nature that many of the latter group give up their attempt and concede that there exists no uniformly consistent or workable plan—that it is still a question of opportunism and expedience.

Considering the intense interest of the public in reserve policies, during the last year particularly, it becomes pertinent to inquire as to just what is gained by a continuance on the part of the Board of a non-committal or silent policy—if, indeed, the Board really follows such a policy. If its principles are workable and such that the Board has confidence in them and is certain that they can be followed with consistency, then there appears to be good reason for inquiring whether these should not be treated and expounded openly by the reserve authorities. It seems that it might be altogether desirable for responsible central authorities to educate the general public regarding them, rather than to let the public continue to guess at and discover them, if possible. While members of the Board and banks might insist that the various annual reports and monthly bulletins should supply all information desired—and they do include a wealth of frank statements and a mass of valuable data—it must be recognized that the general public rarely sees these, and certainly it is unable to make a critical study of this literature. The public also would welcome fuller explanations by the Board at the time important actions are taken.

Since there appears to be no disposition to publish an official dissertation on the subject of general principles, there is nothing left but to assume that the broad, general pronouncements of 1923 and subsequent years, in which each problem is left to the discretion of the Board as it arises, are the ones under which the Board is functioning at present.

It may be true that it is impossible for any such body to tie itself to principles more rigid than those set forth during the last six years, but if this should be the case it still would appear that it might be highly desirable for the Board to give a new official statement of its conception of the guiding principles, which should be and are used with respect to credit control. Much confusion has developed during the last six years and an effort to clear this away would appear to be eminently worth while.

It seems, also, that the Board would render a valuable service by pointing out specifically the errors of the past, as they are measured against present principles, in order to settle once for all the question as to whether the Board actually believes that it always has been right in its actions. Apparently the Board, as a whole, has never admitted that any of the past actions, for which it was responsible, were wrong. It is recognized, of course, that individual members of the Board, in various hearings before Congressional committees, have been frank in expressing disapproval of past actions of the Board, but these are not included in the publications of the Board as its official opinion. Just what virtue exists in a public body, assuming that "the King can do no wrong," is not at all clear. Indeed, it appears that this is probably one of the most fundamental mistakes of which the Board may be guilty. It well may be true that the Board will lose more prestige by continuing the present secretive policies (assumed by some to exist), than it would if it were checked up occasionally by an understanding legislative body

and public for a violation of its publicly enunciated principles of credit control. If the central reserve authorities would make a greater effort to educate the public and Congress on these matters, the Reserve System might be spared the risks of the various unsound proposals for changes which have been many and startling during the last two or three years.

CHAPTER VI

SUMMARY

Lack of clarity regarding fundamentals

Along with the increased interest in questions of credit control has come a confusion of opinions, with respect to the various considerations involved. Much of this confusion results from a lack of understanding of and an absence of agreement upon the underlying fundamentals. There is some disagreement as to the desirability and possibilities of price level stabilization and the control of credit; there is lack of agreement as to the function of central banking systems in credit control and as to the mechanism available for credit control; there is confusion of opinion regarding the policies which central banking systems have developed in the use of their respective mechanisms and in the various criticisms and solutions that are advanced by those who insist that present methods of credit control are not all they should be.

The desirability of price level stabilization and of credit control

It seems safe to say that the predominant opinion of those persons competent to judge is in favor of attempting to stabilize the price level, and that one of the best means of securing this stabilization is through

the control of credit. While there is some difference of opinion regarding this contention, the opposition appears to be relatively unimportant. A large body of economic doctrine has been developed around the assumption that such stabilization is desirable and most of the proposals for monetary reform are built upon the same premise. It is the conventional thing to judge the goodness or badness of a money and banking system according to whether it provides elasticity in the currency and therefore stability in the price level.

The function of central banks in the stabilization of the price level through credit control

Here, again, it appears that the great majority of the leading authorities believe that it is the prime function of central banking systems to stabilize the price level, in so far as possible, by controlling credit. But it is not possible to say that there is general agreement or understanding as to the manner or effectiveness in which this function can be exercised. In this country, for example, the Federal Reserve Board has taken the position that it is not the function of the Reserve System to attempt to stabilize the price level.

Limitations to the possibilities of stabilization by central banking systems

Everyone should recognize that stabilization is possible only within certain limits. One striking limitation grows out of the fact that every important banking system of the world maintains a reserve structure against notes or deposits, or both, in conformity with

either law or custom. The maintenance of reserves and the stabilization of the price level are two principles that are largely incompatible—a stabilization policy being workable only within the limits of the surplus reserves.

It is interesting to note, perhaps in recognition of this conflict of principles, that very few of the organic acts creating central banking systems provide specifically for price level stabilization through credit control. Where such clauses do exist, as, for example, in Finland, Lithuania, and Poland, they are impotent because the laws also require the maintenance of the reserve structure. There are no specific provisions for price level stabilization in the organic banking acts of England, France, or Germany. In the body of the Federal Reserve Act there is no mention of it. The Title, however, states that it is the purpose of the Act ". . . to furnish an elastic currency . . ." which implies a stable price level, but a title has no value in law if the body of the act is clear. Since the body of the Federal Reserve Act is clear and specific in stating that it is the purpose of the System to accommodate commerce, agriculture, and industry, it appears that the Title is in conflict with the body of the Act and has no legal value.

Another limitation to the powers of central banks to stabilize through the control of credit, appears clearly in times of war, when no banking system, by the use of any known mechanism, is able to combat the multitude of factors making for inflation. Another limiting

factor, closely related to the preceding one, is found in the fact that central banks, either through ownership or some degree of control by governments, are compelled to engage in government financing. When this takes place, credit control in the interests of price level stabilization gives way to the use of credit as dictated by the government.

Still another limitation grows out of the fact that central banks, ordinarily, do not have jurisdiction over a sufficient proportion of the total credit in use to be able to enforce a stabilization policy.

The leading central banking systems of the world exercise their control principally in the fields occupied by the commercial banks. It is true that in England, France, and Germany the central banks may deal in certain types of investment securities which broadens their influence of control somewhat, when compared with that of the Federal Reserve System, which is confined, in the main, to commercial financing, but even this does not give them sufficient control to effect stabilization of the price level. It must be borne in mind, also, that the Federal reserve authorities do not even have control over all the commercial banks of this country; only about one-third of these (including some trust companies) are within the System, although this one-third includes about two-thirds of the assets of all our commercial banks. Considering the great amount of credit in use which does not come within the control of the reserve banks—investment, agricultural, consumptive, etc.—it must be clear that another

severe limitation is placed upon the power of the Reserve System to stabilize the price level through the control of credit.

Furthermore, the authority of the Federal reserve banks and Board, in their effort to exercise control, is limited to the members of the System, except where open market operations have some broadening effects, and it is their specific duty to see that reserve credit is kept within the System and used there properly. If credit is drawn off into other channels, as, for example, into the stock market, it is the right and the duty of the reserve authorities to bring pressure only upon members of the System to return the credit to its legitimate channels. The reserve authorities have no legal jurisdiction over credit used outside the System, and legally cannot bring pressure upon those outside the System to use credit in any particular manner. All control must be exercised on its members and through its members, and any effects on those outside the System must be looked upon as merely incidental.

Absolute stabilization, consequently, belongs to the realm of the academic, and all plans for stabilization under present types of banking structure can function only within these limits. It is generally believed to be eminently desirable, however, that the avilable instruments of credit control be used as effectively as possible in behalf of price level stabilization.

The mechanism of credit control in the United States

The mechanism of credit control in the United States, as in most countries, falls into two classes: (1)

general, and (2) special. The former has to do with such fundamentals of banking as the reserve structure, nature of the note issues, the clearing system, the relation to the government, nature of the paper eligible for rediscount, nature of open market operations, and related considerations. These are concerned with those fundamentals of the structure without which no banking system can function well, but which may or may not have a direct bearing upon the speed of the elasticity of the credit system.

Into the second class falls that specialized mechanism designed to inject speed and accuracy into the responsiveness of credit changes to the needs of business at a given price level. These provisions for securing elasticity are superimposed upon the general ones and differ from country to country. Most of the general discussion, here and elsewhere, regarding credit control relates to the specialized mechanism.

In the United States this specialized mechanism includes the following instruments: (1) the rediscount rate, (2) open market operations, (3) the rationing of credit, (4) regulation of the amount of Federal reserve notes entering circulation, (5) persuasion, (6) warnings, and (7) the refusal of the reserve banks to rediscount eligible paper.

Most of the discussion of credit control, both here and abroad, has centered around the question of the use of the rediscount or bank rate and has tended to overemphasize its importance as an instrument of control. It may be said, by way of summary, that as an instrument of control it is very effective sometimes, at other

times without any appreciable effect, and during most of the time its effects are very unevenly distributed. When credit is being drawn off into the stock market because of high call money rates the rediscount rate is ineffective in holding reserve credit within the System, and an attempt to use it merely penalizes eligible paper and other businesses. It is ineffective, also, in controlling gold movements when other rates in the open market, like the call money rate, are above it and become the controlling factors. Ordinarily its use must be supplemented by other instruments of control, like open market operations.

The effectiveness of open market operations depends upon the type and amount of paper that is purchased or sold, and upon the position occupied by the rates on such paper, among other rates in the open market. When call money rates, for example, are extremely high and are controlling, other open market rates tend to lose much of their effectiveness. Much of the effectiveness of open market operations depends also upon general business and credit conditions, upon the nature and extent of government financing, upon the amount of paper which reserve banks are able to sell and purchase, upon the extent of the surplus reserves of themselves and their member banks, and upon the uses made of the money placed in the open market. They are a helpful instrument to use to meet seasonal demands in business, to offset the effects of government and corporate financing and gold movements, but it is very doubtful if they can have any appreciable effect upon cyclical or secular trends in business.

The rationing of credit is not an important factor in credit control. The regulation of the amount of Federal reserve notes entering circulation is used largely to obscure the extent to which surplus reserves exist, and plays no important part in credit control. The effectiveness of persuasion depends upon the disposition of the officers of member banks to coöperate with reserve officials. At times it has played no small part in aiding in credit control, but its use has been confined largely to the meeting of abnormal conditions. It is a desirable weapon to use to curb individual banks in their violations of good banking practice, when it would be unwise to penalize all through the use of the rediscount rate. Warnings, likewise, are used when credit conditions approach a very abnormal state, and at times have exercised a marked influence upon business conditions, while at other times the warnings of reserve authorities appear to have had little effect upon the use of credit, qualitatively or quantitatively.

The right of the reserve banks to refuse to rediscount eligible paper is a weapon that could be used to make a warning very effective. It is an instrument that could be used to compel member banks to lend their credit as desired by the reserve authorities. It appears desirable, for example, to use it in lieu of the rediscount rate, to curb member banks in their lending in the stock market. While this instrument has rarely been used, the power of the authorities to employ it is beyond question. Its virtue lies in the fact that recalcitrant member banks could be curbed in their individual violations without penalizing other banks and businesses,

through the use of the rediscount rate. It does not seem advisable to chastise all the rediscounting banks of a district by raising the rediscount rate, simply because certain banks are acting unwisely. The refusal to rediscount eligible paper, however, should be considered primarily as an instrument for qualitative rather than quantitative control of credit.

Credit control in England, France, and Germany

These countries, like the United States, can have price level stabilization only within the limits of their surplus reserves. In England reserves are required against notes, but no law regulates the reserves maintained against deposits; custom is the controlling factor. The bank rate, supplemented by open market operations, is considered a very effective instrument of credit control, partly due to the important place occupied by the Bank of England in international financing. Because of its relative importance as a controlling factor, the bank rate in England fluctuates more rapidly than in any other country. In France the changes are the most infrequent; in Germany the frequency falls betweeen that of the Banks of France and England.

It is difficult to derive valuable lessons or analogies from practices in these foreign countries. The so-called open markets of each country have distinct differences; the rate structures differ; the customs and practices are different. The fact that the Bank of England and the Reichsbank deal in listed stocks and bonds does not demonstrate, apparently, that the same practice would work well in the United States. Both the Bank of Eng-

land and the Reichsbank, unlike the Federal Reserve System, have a so-called Lombard rate for advances made against stock exchange collateral, the rate ruling slightly above the bank rate.

In France and in Germany legal reserve requirements are set up against both notes and deposits. This, of course, limits their power to stabilize the price level. Much of the stabilization in France comes from the general stability of her economic order, rather than from the influence of her bank rate, which she uses with great moderation. Her money market is so poorly organized that it is not an important factor in stabilization.

It is difficult to appraise the usual effectiveness of Germany's mechanism for credit control, because of the abnormal conditions under which the Reichsbank must function at present. One may say with respect to the present, however, that the Reichsbank plays an important part in credit control and has tended to bring most of the great domestic banks under its influence, if not its control. The effectiveness of its bank rate probably occupies a position between those of England and France.

How the Federal Reserve System has used its mechanism of credit control

The years 1914-1917 were years of organization and experimentation. Then came the World War, during which time reserve policies were dominated almost entirely by the Treasury. Normal banking policies could not and did not develop. The winning of the war

was the prime consideration during 1917 and 1918. Most of the banking policies and rate structures up to 1920 were in the nature of experiments. During the years 1920 to 1923 the reserve authorities were busy attempting to stem the tide of deflation and the subsequent rise of prices, so that it was not until 1923 that anything like normal banking policies and rate structures began to appear.

The normal mechanism which is available for use, and which has been used in varying degrees, comprehends the seven specialized instruments mentioned above. But the reserve authorities have not developed anything like a rigid set of principles regarding the use of the various elements in this mechanism. They have taken the position rather consistently that they cannot stabilize the price level, and reserve the right to meet each situation as it arises. Discretion plays a large part in reserve policies, which are designed to aid commerce, agriculture, and industry, not to stabilize the price level. In the opinion of many, opportunism is no small factor in reserve policies.

There is some feeling that the Board is too vague and secretive concerning the policies and principles which are followed in credit control, and that it might render a better service to the country by endeavoring to educate the public and Congress with respect to its operating principles. It is believed, also, that this method might afford some safeguard against the many criticisms, unwise as well as wise, directed against the System.

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